

A LONDON HIGHWAY AND TRAFFIC AUTHORITY?

See Page 2



NEW IRISH SEA FERRY

See Page 3

VOL. LXXX No. 2079

[Registered at the G.P.O.
as a newspaper]

LONDON, JANUARY 31, 1959

PRICE NINEPENCE

Line Clearance at Railway Accidents

WHENEVER a railway suffers the misfortune of an accident blocking a running line—and unfortunately no railway can expect to be immune from the possibility—a matter of major importance is the speed with which the line can be reopened to traffic. This depends, of course, primarily on the nature of the breakdown, but the effects can be mitigated and clearance expedited by the use of modern equipment and the proper training of breakdown train crews. The detailed methods differ from country to country owing to practical considerations. Thus the capacity of breakdown cranes used will be regulated to some extent by the weight of rolling stock to be lifted, whilst quite different techniques may need to be developed for lines electrified on the overhead feed principle or where single-line working predominates. An article commencing in this issue attempts to summarise the practices of railways throughout the world in connection with this problem, and a comparison is made of the methods and equipment used. All railways utilise breakdown cranes, although these vary widely in capacity, but it is of interest to see the increasing use made in recent years of alternative equipment, such as the power-operated jacks of the Deutschland (M.F.D.) type. Breakdown cranes suffer from the difficulty that they very frequently block adjacent tracks, whilst the orthodox types are generally impracticable where accidents occur in tunnels or on electrified lines. This latter problem will certainly develop in importance in the years to come.

Use of Road Transport

GROWING importance is being attached by most railways to the use of specially adapted road vehicles to assist at railway breakdowns. Road transport can be dispatched at a moment's notice, and, moving on the road, it is not subject to the delays which may interfere with the rapid movement of breakdown trains. Thus, other trains may be between the depot and the scene of the accident, and these may require to be moved out of the way to permit the passage of a breakdown train. Road vehicles are, therefore, ideally suited to play the role of an advance guard, and they can enable clearance to be commenced and the site prepared before the arrival of the heavier equipment by rail. At the present time, British Railways, contrary to the general trend throughout the world, is not making significant use of road vehicles in accident clearance work. The view seems to be held—and it is shared by the Netherlands Railways—that many locations are too remote from roads to make this practice worthwhile. Should consideration, therefore, be given to the possible development of a tracked vehicle for use where road approach is impracticable? This would, of course, give rise to many problems including the right of access to private land, but it is nevertheless deserving of thought.

Highway Law Consolidation

AS a result of its consideration of the many enactments dealing with what may very roughly be described as the administration of highways and bridges, the Committee appointed last February under the chairmanship of Lord Reading to examine highway law and its consolidation is convinced that an Act to consolidate them is much needed. A committee under the chairmanship of Lord Amulree was set up in 1938 to prepare a Bill for this purpose but the outbreak of war made it impossible for that committee to complete its task. Apart from this no attempt to consolidate the relevant Acts has been made for over a century. Many and far-reaching changes in the law have taken place since the passing of the last consolidation Act, the Highway Act, 1835, while the modern roads, for all their defects, are so infinitely superior to those in existence then as scarcely resemble them. Whereas only 11 Acts were repealed by the Act of 1835, the repeal schedule to the draft Bill published this week simultaneously

with the Reading report lists more than 30 Acts, the whole, or virtually the whole, of which are to be repealed; further, there are as many others some parts of which will disappear if the draft Bill becomes an Act. This, it seems to the committee, indicates very clearly the desirability of a consolidation Bill on this topic. Moreover, there is need for realism on such matters as the outmoded possibility of taking criminal proceedings against the inhabitants of a district if a road in their neighbourhood falls into disrepair. The report (Cmd. 630, H.M. Stationery Office, price 9s.) has appended to it 123 pages of notes on the 310 clauses and 25 schedules of the draft Bill.

CURRENT TOPICS

Passing Signals at Danger

AS the result of a collision on the morning of July 4, 1958, at Maze Hill on the North Kent (via Greenwich) line, in which 43 passengers were injured—none seriously—a motorman was tried at the Old Bailey before the Recorder on December 15 and 16. The charge, which was brought under Section 34 of the Offences Against the Person Act, was that of endangering the safety of passengers by wilfully neglecting to conform to signals. He was found not guilty and acquitted. According to the report of Brigadier C. A. Langley, chief inspecting officer of railways, the 9.41 a.m. four-coach electric passenger train, Gravesend Central—

have been progressive diversification of the business, a long and difficult process. The enterprise of Mr. Frank Perkins and his associates has, however, developed a basically sound undertaking with a product which has enjoyed a very wide measure of success at home and overseas and the factories have a quite astounding capacity for turning out large numbers of engines. The Massey-Ferguson group stands to be further advanced towards its ambition of becoming a self-sufficient tractor producer in this country and would also have a stake in the provision of engines for agricultural and industrial plant of all kinds, boats, and commercial vehicles.

For the Sake of Television

HIDDEN away in the Californian mountains was a large territory where nobody could have television. A TV station was out of the question because it was impossible to lay a power cable across the wild and rugged Los Padres National Forest. A ground crew, with all its transport and tackle, might have battled its way over the mountains at a speed of perhaps a pole a day. Some 62 poles were needed, or 62 days of costly work. The Pacific Gas and Electric Company wouldn't consider it, until helicopters were suggested as a solution. A Sikorsky S58 and a Bell 47 carried out a rehearsal on an airfield. On the actual day of operations the smaller machine carried a ground team to the first site and the Sikorsky flew in, carrying the first 50-ft. pole. Then hovering over the hole dug by the land crew, the pilot pressed the release, and dropped the post into the hole. In a little over seven hours the helicopters had finished the pole erecting. Precautions were that the ground men wore rubber gloves as protection against static electricity in the shackle, and goggles as protection from stones stirred up by the down draught of the rotors. Then the little Bell strung out the whole transmission cable—several miles of it—in less than 15 minutes.

LEADING FEATURES IN THIS ISSUE

Portrait	PAGE		PAGE
Mr. William Wallace	9	Toolmakers' Certificate: Revised Conditions of Award	10
Special Articles		New Bakelite Polyester-Glass Dough	10
A London Highway and Traffic Authority?	2	Albions for Bulk Loads	11
A Liverpool-Belfast Ferry Service: For Trailers and Containers: New Coast Lines Company Formed	3	London Trolleybus Replacement Preparations: Integration with Bus Routes	13
Railway Breakdown Practices: Comparison of Equipment and Procedures Used	5	Driver Aloft in New Swiss Bus	14
South African Bus: New Leyland for Rough Country	7	Regular Features	
Douglas Dumpers: Four-Wheel-Drive Range	7	Commercial Aviation	9
New Conveyancer Reach Trucks	7	Financial Notices	16
An Institute Dinner: Berks, Bucks and Oxon Section	9	Forthcoming Events	2
Hydraulic Rubber Press: B.I.P. Engineering Unit	10	Important Contracts	16
Rotol Exhaust Turbocharger: Pressure-Ration Control	10	In Parliament	9
		Letters to the Editor	6
		Lorry, Bus and Coach News	4
		News from All Quarters	8
		Shipping and Shipbuilding	16
		Social and Personal	15
		Tenders Invited	16

Instruments of Transport

MODERNISATION is making big demands on manufacturers of transport equipment. One of the largest of these is the Westinghouse Brake and Signal Company. In his annual statement to shareholders its chairman, Captain A. R. S. Nutting, points out that the parent company's technical arrangements with all the Westinghouse companies throughout the world mean that it has available in London all the information and know-how to meet the varied and ever-changing demands of customers at home and abroad, and it has the personnel and facilities needed to advise and satisfy them. Schemes under preparation each year represent many millions sterling in value, and the company "is fortunate in having a fair share of the best and most experienced signalling and braking experts in this country." To them, he says, the company owes a great debt, and he speaks of their knowledge, unrivalled experience and ability as keeping it in the forefront in those fields. The year to September, 1958, he describes as one in which many unforeseeable difficulties have been encountered, deliveries under certain large contracts having had to be spread over a longer period than was originally anticipated. The consequent substantial slowing down in the rate of production affected the year's results, particularly as regards the brake division. Nevertheless, despite a small decline in trading profit, the previous year's 10 per cent dividend is maintained. The statement mentions the bringing into service, with completely satisfactory results, of the first Westronic centralised traffic control installation and the first Westinghouse electro-pneumatic retarder to be manufactured in the United Kingdom. During 1959 a fully automatically controlled marshalling yard, the first of its kind in Europe, is to be brought into service in this country.

Charing Cross, running past the up home signal at danger, collided head-on with a nine-coach empty steam passenger stock train which was being shunted slowly from the up sidings across the up towards the down line. Responsibility for the accident is attributed to the motorman of the electric train, who admitted seeing the distant signal at caution but could not recollect seeing the home signal when he passed it at danger. The guard of the same train is also regarded as bearing "some measure of responsibility" for omitting to make an emergency brake application. Both men had clear records. The accident, states the chief inspecting officer, was the result of the failure of a hitherto thoroughly competent motorman to observe in clear daylight a well-sited semaphore signal at danger; he cannot offer any satisfactory explanation for so serious a lapse. Grave consequences arise from the passing of signals at danger, and the problem of further reducing accidents from this cause, low though they be already, is being examined afresh. A special investigation with the help of a technical panel is being made by the B.T.C.

Another Takeover Bid

AMONG takeover bids affecting the transport industry that of Massey-Ferguson for F. Perkins, Limited, the Peterborough diesel engine manufacturer is of particular interest. The sum of 17s. 3d. for each Perkins 10s. share make a total offer of £4,485,000, subject to Treasury consent. The offer is supported by the Perkins board. The rights of the Oliver Corporation of Chicago to pay £325,000 for 650,000 Perkins shares and to transfer to Perkins certain plant for the building of outboard motors will be covered by a payment of £422,500. It is understood that in view of last year's loss of £300,000 on the Perkins business and a large bank overdraft, the alternative to a takeover bid would

Bridge Building Progress

THE speech by the chairman at the annual general meeting of the Cleveland Bridge and Engineering Co., Limited, almost invariably conveys an insight into an aspect of British civil engineering contracting in various parts of the world. This year Mr. J. R. Dixon was able to refer to his personal visits to the Antipodes and India and to the recent visit of the Prime Minister and Lady Dorothy Macmillan to the company's works in Darlington, where they showed great interest in the job. In New South Wales he reported completion of the George's River Bridge at Liverpool early in 1958 and that the Spit Bridge, Sydney, with a bascule span, had been opened to traffic on November 22. The old bridge is now being dismantled and it is hoped to clear the site by April. We have recently recorded progress on the Auckland Harbour Bridge; the people of the New Zealand city already refer to "our bridge." Concreting of the deck of this structure, which is being built by Cleveland in association with Dorman Long, is proceeding at four points and it is hoped to open it on May 30. The Cleveland company is also supplying 13,000 tons of structural steelwork for the Durgapur steelworks in India. The company has a profit after taxation of £88,412; it has been thought advisable to allocate £100,000 from the contracts contingencies reserve account to further writing off in respect of the Australian contracts, but a claim is being made for extra payments in view of the nature of the difficulties experienced. A sum of £50,000 has been transferred to the contracts contingencies reserve and a plant replacement reserve account has been opened with a payment of £30,000. Work completed includes the Ribble bridge on the Preston bypass, and there has been good progress on the Neath bypass No. 2 contract. On the Forth Road Bridge, which will have the fourth longest suspension span in the world, Cleveland Bridge will be in partnership with Sir William Arrol and Co., Limited, and Dorman Long (Bridge and Engineering), Limited.

WINDSCREENS

by

BECLAWAT



When it is a question of Wind-
dows, the name BECLAWAT
needs no introduction. But
are you aware that Beclawat
experience and resources can
be brought to bear on the
design and/or production of

Windscreens, Quarters, Louvres and Glazed Panels of all types
Beclawat standards ensure good appearance, maximum visibility,
ease of operation and freedom from maintenance.

BECKETT, LAYCOCK & WATKINSON LTD

ELLIOTT WINDSCREEN DIVISION

ACTON LANE · LONDON · NW10

SERVICE FOR A SERVICE



The Gas Industry serves the
British public at home and at work.
British Railways serve the Gas Industry.
Coal in : coke out — by rail
Better services — Bigger wagons
Keen competitive prices

BRITISH RAILWAYS

Information can be obtained from any station master or goods agent, or from:
Commercial Officer, Eastern Region, Liverpool Street Station, London EC2 (Bishopsgate 7600)
Commercial Officer, London Midland Region, Euston Station, London NW1 (Euston 1234)
Commercial Officer, North Eastern Region, Headquarters Offices, York (York 53022)
Chief Commercial Manager, Scottish Region, 87 Union Street, Glasgow CI (Douglas 2900)
Chief Commercial Manager, Southern Region, Waterloo Station, London SE1 (Waterloo 5151)
Commercial Officer, Western Region, Paddington Station, London W2 (Paddington 7000)



Published Every Friday
RUSSELL COURT, 2-16 WOBURN PLACE,
LONDON, W.C.1

Telephone Number: TRInham 0203 (3 lines)
Telegraphic Address: Transpobee, Westcott, London

ANNUAL SUBSCRIPTIONS
BRITISH ISLES, 35/-; CANADA, 32/6;
ELSEWHERE ABROAD, 35/-
payable in advance and postage free

The Editor is prepared to consider con-
tributions offered for publication in
MODERN TRANSPORT, but intending con-
tributors should first study the length
and style of articles appearing in the
paper and satisfy themselves that the
topic with which they propose to deal
is relevant to editorial requirements. In
controversial subjects relating to all
aspects of transport and traffic this
newspaper offers a platform for inde-
pendent comment and debate, its object
being to encourage the provision of all
forms of transport in the best interests
of the community.

A London Highway and Traffic Authority?

LATEST recruit to the belief that a unified
traffic policy, implemented by a traffic
authority with necessary powers and
fully qualified staff, is needed for the adminis-
tration of highways in the London area is no
less than the Ministry of Transport. Last
autumn it was being advocated by the
motoring organisations. In a memorandum
of evidence given to the Royal Commission
on Local Government in Greater London, the
Ministry surveys the road traffic scene and
suggests that the multiplicity of authorities
concerned and the fragmentation of responsi-
bility for traffic control make it impossible
to deal efficiently with present-day difficulties.
"The traffic problems of 1958 are being dealt
with through an administrative machine
geared to the tempo and problems of the
1920s." If the main-road system of Greater
London is to match the road system of the rest
of the country (including the eventual
possible adoption of the urban motorway
principle) the administration of highways
must be based on highway authorities of
adequate size and powers. Some authorities
will inevitably lose their highway functions
to new ones of a more suitable size. The
Ministry considers that the County Councils
of London and Middlesex carry extensive
highway responsibilities but are "larger than
is desirable for a single-tier highway
authority, responsible for the maintenance of
all roads in its area as well as for major
improvements and new construction."

Resistance to Proposals

IN this respect many will consider that the
Ministry of Transport proposals do not
go nearly far enough. The difficulty of
the administration is no doubt to know how
far it should, or can safely, go. Opposition
stems from a fear of the expansion of
bureaucracy and quickly spreads. On the
Memoranda of Evidence from Government
Departments it is admitted by *The Times* that
much of what is set out is inevitable—but
"controls and authorities have a procreative
urge and so the pyramid broadens and
heightens ad infinitum." There follows a
sharp attack on the Ministry of Transport
project:

"Nonetheless, resistance must continue to be
offered where possible. The Ministry of Transport's
proposal for yet another body concerned with
traffic, 'an appropriate executive authority, armed
with the necessary powers and fully qualified staff,'
is hopeful ground on which to fight. It is true the
new body would be called into being to co-ordinate,
and where possible replace, the 'multiplicity of
authorities' already sharing the 'fragmentation of
responsibility for traffic control.' But a fair
deduction from experience is that Pelion would not
replace Ossa but be piled on top of it. What is
needed to cope with London's teeming traffic is,
first, a determination, no matter how unpopular
such a decision may be, that the streets of the
capital shall not become a vast open garage;
secondly a will on the part of every authority and
official concerned to speed traffic up, not to slow
it down."

Need for Uniform Treatment

THE concluding thoughts are unexception-
able, but disagreement with the idea of
the suggested new body smacks strongly
of a recent reading of *Parkinson's Law*. There
are so many reasons for disquiet at the present
state of London traffic that the Ministry
scheme of new traffic authorities deserves
closer consideration. There might well be
scope for an all-embracing highway and
traffic authority covering the Metropolitan
Police district, or perhaps still better, catering

MODERN TRANSPORT JANUARY 31, 1959

for all places inside an existing defined traffic
area such as the London Transport special
area. In the cause of safety vehicle drivers
would like to find on the through routes of
the Metropolis some uniformity of surface
and of lighting. In the cause of timekeeping
it would be nice to know that while Authority
A was resurfacing an important thoroughfare,
the neighbouring Authority B had refrained
from making a dodgem track of the parallel
street, the best alternative route, with excava-
tions dotted about in it at short intervals. An
overall authority really concerned with the
promotion of traffic flow might be able really
to co-ordinate the excavating zeal of the
many bodies with powers to dig. At present
co-ordination gets lip-service but is little
apparent to those whose vehicles move about
the Metropolis on business.

What Might be Done

SUPPOSING that the police powers of con-
trolling traffic flow were handed to the
new body? We believe the average
policeman dislikes traffic duty; the task of
the police force is to prevent or detect crime
and not primarily to expedite traffic move-
ment. But a Metropolitan body for the
purpose might be able to devise a plan for
traffic-control training for its men so that
standards of manual control of traffic were
raised to the heights attained in the past. Its
traffic engineers (which it would probably
have to train itself, owing to the neglect of
the art) could make scientific assessments of
the needs of traffic signal cycles at inter-
sections and could also assess the relative
importance of the many bottlenecks, well
known to professional transport operators,
but for which no alleviating schemes appear
to be in the offing. No doubt it would first
have to make the best of the existing streets,
either by minor alterations for the release
of traffic or by regulating parking and
encouraging off-street facilities. If its re-
searches were well based, however, it might
win more public confidence than has been
gained by the largest of the existing
authorities with its traffic-stopping round-
about at Hammersmith and its under-sized
proposals at the Elephant and Castle. If
wisely constituted, the new body, in a word,
would have a splendid opportunity for
studying traffic flow and preparing the sort
of comprehensive road improvement plan for
London that the Roads Campaign Council is
seeking in its current prize competition.

Forthcoming Events

- February 2.—Institute of Transport (Metropolitan). Paper by Mr. G. F. Fienness, "Railway Reorganisation and its Purpose." At 80 Portland Place, W.1. 5.30 for 6 p.m.
Institute of Transport (Darlington). Paper by Mr. S. C. Dickinson, "Coastal and Short Sea Shipping." At United House, Grange Road, Darlington. 7 p.m.
Institute of Transport (East Anglia). Discussion of problems of modern transport undertakings. At Office of Eastern Counties Omnibus Co., Limited, Norwich. 6 p.m.
Institute of Road Transport Engineers (Scottish). Paper by Mr. E. Kellett, "The Design of Radial-Flow Turbo-Chargers and their Application to Road Transport and Public Service Vehicles." At Institution of Engineers and Shipbuilders, Elmbank Crescent, Glasgow. 7.30 p.m.
February 3.—Institute of Transport (London). Informal luncheon. Speaker, Colonel Sir Ralf Emerson. At Connaught Rooms, Great Queen Street, London, W.C.2. 12.30 for 1 p.m.
Institute of Transport (Gloucester and Cheltenham). Paper by Mr. C. H. Preece, "Rural Bus Services." At Midland and Royal Hotel, Gloucester. 7 p.m.
Institute of Transport (Irish). Paper by Mr. H. E. Osborn, "Transport Costs." At C.I.E. Club, Earl Place, Dublin. 6.15 p.m.
Institute of Transport (North Western). Paper by Mr. Gilbert Jenkins, "A Survey of Management Training Schemes in the North West." At Gas Service Centre, Manchester. 6.15 p.m.
Institute of Transport (Midland). Paper by Professor Gilbert Walker, "Investment in Transport." At Exchange and Engineering Centre, Stephenson Place, Birmingham. 6.30 p.m.
Institute of Road Transport Engineers (North Regional). Paper by Dr. J. H. Weaving, "Gas Turbines." At Commercial Hotel, Accrington. 7.30 p.m.
Institute of Road Transport Engineers (Eastern). Paper by Mr. C. E. Cook, "Some Considerations Affecting the Selection and Use of Fuels and Lubricants for Road Transport." At F. Perkins, Limited, Midgate, Peterborough. 7 p.m.
Permanent Way Institution (Leeds and Bradford). Paper by Mr. E. R. Newsen, "The Reconstruction of Temple Mills Marshalling Yard." At B.R. Social and Recreation Club, Leeds City Station. 6.45 p.m.
Institute of Traffic Administration (Southampton). Paper by Messrs. E. Mallinson and J. Bolton, "The Operation and Maintenance of a County Ambulance Service." At The Castle, Winchester. 7.30 p.m.
Institution of Civil Engineers. Paper by Mr. F. S. P. Turner, "Preliminary Planning for the New Tube Railway Across London." At Great George Street, S.W.1. 5.30 p.m.
South Wales and Mon. Railways and Docks Lecture and Debating Society. Paper by Mr. E. R. Radway, "The Mechanical and Electrical Department of the South Wales Docks since Nationalisation." At Angel Hotel, Cardiff. 6.30 p.m.
February 4.—Institute of Transport (Irish). Annual dinner and visit of president. At United Services Club, Dublin. 7.30 for 8 p.m.
Institute of Transport (Leicester). Paper by Mr. G. Collins, "Goods Station Working." At City Transport Offices, Leicester. 7 p.m.
Institute of Road Transport Engineers (Western). Paper by Mr. D. W. Bravery, "From the Laboratory to the Road." At Royal Hotel, Bristol. 7 p.m.
Institution of Railway Signal Engineers. Paper by Mr. O. S. Nock, "The Protection of Facing Points." At Institution of Electrical Engineers, Savoy Place, W.C.2. 6 p.m.
Electric Railway Society. Paper by Mr. A. A. Jackson, "Ealing to South Harrow." At 153 Drummond Street, N.W.1. 7.15 p.m.
February 5.—Institute of Transport (Northern Ireland). Annual dinner and visit of president. At Belfast Castle, Belfast.
Institute of Transport (Merseyside). Paper by Mr. J. F. Parke, "What is the Future of Internal Air Services?"
Institute of Transport (South Eastern). Paper by Mr. D. M. Davies, "The Future of Rotary Wing Aircraft." At Saracen's Head Hotel, Ashford. 7.15 p.m.
Institution of Highway Engineers (Yorks and Lincs). Paper by Mr. C. P. Carter, "Traffic Control in a Cathedral City." At Royal Station Hotel, York. 7 p.m.
February 6.—Institute of Transport (western). Paper by Major-General Sir Reginald Kerr, "British Waterways." At Docks Office, Bristol. 1.15 p.m.

MODERN TRANSPORT has an arrangement with
Reuter's Trade Service whereby publication is made
in this newspaper of all essential news from all parts
of the world concerning traffic and transport by
rail, road, sea and air and allied interests.

A LIVERPOOL—BELFAST FERRY SERVICE

For Trailers and Containers

NEW COAST LINES COMPANY FORMED

LAST week Coast Lines entered the Irish cross-channel trailer and container ferry business through the medium of a new company, Link Line, Limited. This company on Thursday inaugurated a comprehensive service of this character between Liverpool and Belfast. The new organisation has acquired two motorships from the Zillah Shipping Co., Limited (a Coast Lines company)—Brentfield and Birchfield—which have been renamed

such units can be carried by these ships. Trailers are positioned in the hold by means of a Bedford-Scammell tractor placed therein and there is deck accommodation for some twelve containers. Normal hatch boards and removable beams are employed on the opening forward.

The names of the two vessels have been revived from two which were in the fleet of the old Scottish company, G. J. Burns. Headquarters of the new company are at Ulster House, 42 Donegall Quay, Belfast, while the Liverpool agent is Coast



Scammell semi-trailer going on board the new Link Line vessel "Spaniel" at Liverpool; and, right, shunted into position in the 130-ft. long hold

Spaniel and Pointer; new quay facilities have been built at Liverpool and Belfast and include a Butters 15-ton s.w.l. crane at each port; a range of aluminium containers with a capacity of 12 tons each have also been specially designed for the new service which will operate nightly in both directions.

Link Line is providing a regular service for unit loads of all types—vehicles, trailers, large containers, Lancashire flats, bulk liquid tanks and other similar units—which it is felt will help shippers whose traffic can benefit from door-to-door transit. As there are no tidal restrictions at Belfast and the Waterloo Dock at Liverpool allows berthing at any state of the tide, the ships will be able to make an overnight passage, departing about 6.30 p.m., and to begin discharge at both ports at 8 a.m. daily. For natural reasons, Liverpool and Belfast have always handled a large proportion of the trade moving between England and Northern Ireland, because both ports lie close to main manufacturing centres. The ability to deliver right into the heart of Belfast is an added attraction. These regular sailing times will fit in well with road transport schedules. The Liverpool Cartage Co., Limited (a Coast Lines company) can supply haulage requirements in Liverpool and also carries out some of the quay-side shunting movements.

Own Containers Available

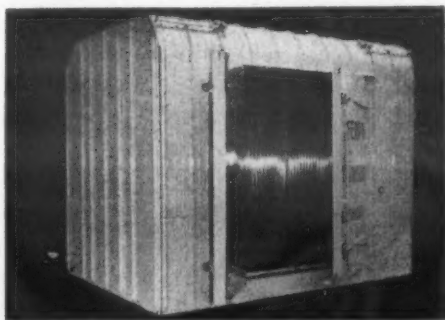
While the company can supply the up-to-date containers, each capable of carrying 12 tons of goods, the company realises that some shippers may prefer to use trailers or Lancashire flats while others will require insulated containers. At the outset it is the company's intention not only to handle such loads but to develop its resources flexibly to meet any new trends.

To ensure a comprehensive service Link Line has already made arrangements to work in co-operation with the Belfast Steamship Co., Limited, and the Belfast, Mersey and Manchester Steamship Co., Limited, which, between them, provide two general cargo sailings each day between Liverpool and Belfast and have special facilities for the smaller type of containers of up to four tons capacity. Through these organisations the new company will meet the needs of shippers who offer traffic which is not suitable for unit loading. At Liverpool the

Lines, Limited, Reliance House, Water Street. It is interesting to recall that there was an earlier company of a similar title, but engaged in road passenger and goods transport. This was Link Lines, Limited, which ran on the Glasgow—Arrochar—Ardaraig—Tarbert service and was acquired by David MacBrayne, Limited, in 1932. MacBrayne is, of course, owned jointly by Coast Lines and the B.T.C.

Ulster Ferry Transport

The first road haulier transferring to the new service was Ulster Ferry Transport, Limited, whose headquarters are in Belfast and who commenced operations, using the Larne—Preston crossing, in 1949. Some twenty of its trailers or containers were on the inaugural sailing from



This small Neville light alloy container is lined with expanded polystyrene panels for the carriage of frozen and semi-frozen foods

Liverpool. The company now has about twenty tractor units available in England—in Northern Ireland the U.T.A. provides haulage. Ulster Ferry Transport has already established a temporary caravan office on the quay at East Victoria Dock. Originally an offshoot of Northern Ireland Eggs, Limited, the company still specialises in that traffic—an average of 10 million are brought to England weekly—but large quantities of machinery, textiles and tobacco now figure in the traffic ex Northern Ireland.

Light Alloy Containers

Both Link Lines and Ulster Ferry Transport offer light alloy containers of up to 12 tons capacity. These are 17-ft. or 20-ft. units of 900 cu. ft. capacity or more with a tare of about 22 cwt., manufactured by G. E. Neville and Son,



An Albion-Scammell unit of Ulster Ferry Transport delivering eggs in the West End of London; right, one of the 17-ft. long 900 cu. ft. light-alloy containers available from Link Line

loading berth for the new ferry is at East Victoria Dock, while at Belfast the terminal is at Spencer A Quay.

The Pointer was built at Ardrossan Dockyard in 1956 and the Spaniel by George Brown, Greenock, in 1955. Both are approximately 224 ft. long with beams of 37 ft. 6 in. The tonnage of each is about 1,265 gross (660 tons net) while the propelling machinery is a Clarke-Sulzer type TD36 diesel of 1,260 b.h.p., giving a service speed of 11½ knots. The vessels are equipped with radar, radio-telephone, Decca Navigator and echo-sounding equipment to aid speedy and safe operation.

Hold Arrangement

Since they were acquired by Link Line the two ships have been converted at a cost of about £1 million for their new trade at Ardrossan Dockyard. The interiors have been reconstructed so that there is one hold of 130 ft. which is free of obstruction and in which semi-trailers or large unit loads can be stowed four abreast. Up to 36

Limited, Mansfield. Those for the Link Line were supplied by the Insulated Trailer Co., Limited, Bedford. They employ the Neville patented form of construction, now two years old. Underframe and flooring are either tongued and grooved timber flooring or light alloy planking. The sides, side framing and roofing are formed from one-piece extruded panels bent to U-shape. A projecting external flange retains a weatherproof seal. The shell interior is thus smooth and frameless. Special door framing sections obviate the need for rubber sealing—an important feature when sea transit is intended. The container shell is an assembly of interchangeable components, all of which are available for self repair. Rubbing strakes are fitted diagonally to obviate damage while in the hold, and the lifting eyes each have a three-point mooring on the base of the container. When thermal insulation is required, insulating boards are attached to sides, front and rear of the container shell interior; the insulating medium provides a 4-in. air space between the inner and outer skin. The final interior and floor are lined with alloy sheet.

ROAD PROMINENCE

Homalloy

Homalloy cabs and commercial vehicle bodies can be seen on trunk roads throughout the world. Tipperns, tankers, platforms, vans, or 'specials'; Homalloy make them all! There's a Homalloy answer to your transport problem—Ring Preston 89233 for action.

THOMAS EASTMAN & SONS LTD THORNTON BLACKPOOL

Homalloy All-Plastic Large-capacity Luton Van Body and Cab on Albion 'Ardoran' Coach Chassis. Overall length 30 ft. Capacity 2,000 cu. ft.

Homalloy

LIGHT ALLOY & PLASTIC CABS AND BODIES

HOME

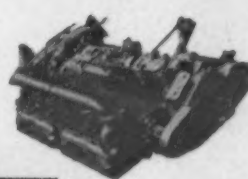
HOLMES (PRESTON) LTD.
HOMALLOY WORKS
Blackpool Rd., Preston, Lancs.
Phone: Preston 89233 (5 lines)
Grams: Homalloy, Preston

OVERSEAS

SOUTH AFRICA
BUS BODIES (S.A.) LTD.
P.O. Box 4006, Port Elizabeth
Phone: 4-2665

RHODESIA
ZAMBESI COACHWORKS LTD.
Private Bag 25, Kopje, Salisbury
Phone: 24353

Designed
for today's operating needs...
the
A.E.C. 'RELIANCE'



The A.E.C. AH470 6-cyl. power unit of the Reliance develops 112 b.h.p. at 2000 r.p.m.

This 'Reliance', with a Harrington P.A.Y.E. 42-seater body, is one of 114 A.E.C. single-deckers in the 'Maidstone & District' fleet. Forty more 'Reliances' are on order.

Its design timed to to-day's conditions, the A.E.C. 'Reliance' is Britain's foremost all-purpose, single-decker. With its lively, instantly responsive 112 b.h.p. engine, this sturdy well-proved medium weight model has all the power needed for heavy rush-hour traffic—without the use of a 2-speed rear axle. Yet it is so basically economical to operate that it can be used continuously with minimum running cost on slack period schedules. In short, the 'Reliance' solves the

problem of peak and off-peak loads. The 'Reliance' will take up to 45 seated passengers; give 16-20 m.p.g. It can be fitted with Monocontrol or Automono-control transmission for easy driving on stop and start city services, or with synchromesh gearbox for longer distance running. With its early morning to late night availability and low maintenance cost, the 'Reliance' is the most practical profit earning chassis for the large or small operator.

* 98 or 112 b.h.p. oil engine * Auxiliary-drive gearbox
eliminating belt drives * Compressed-air or vacuum brakes

Write for full details



A.C.V. SALES LIMITED
A.E.C. WORKS • SOUTHALL • MIDDLESEX

CV.451 THE A.C.V. GROUP OF COMPANIES INCLUDES A.E.C. AND THE MAUDSLAY MOTOR CO.



LORRY—BUS—COACH

Another McKelvie Application

TRANSPORT of 4,000 tons of high-tensile tubes from Motherwell to Blaenau Ffestiniog, in North Wales, for hydro-electrical development was the subject of an application before the Scottish area Licensing Authority on January 19, Mr. W. F. Quin presiding. The application was by McKelvie and Co., Limited, of Barrhead, for four articulated vehicles of 19 tons and four articulated trailers of 19 tons to be acquired and the application was supported by Marshall and Anderson, Limited, and by the Motherwell Bridge and Engineering Co., Limited. Marshall and Anderson is to provide the 9 ft. 6 in. dia., 30-ft. long tubes which are to be site welded. They are working to a tight schedule of delivery of nine tubes per two weeks. To meet these requirements McKelvie has designed a special type of vehicle, it was stated, which will give enough clearance on the final stage of the travel and be equally suitable because of a 13-ft. bridge to be negotiated en route.

British Railways, B.R.S., Gavin Wilkie, Limited, and R. Wynn and Sons, Limited, objected. Mr. J. Fleming, for British Railways, maintained that there was no question of daily delivery, or of special facilities at the delivery end, or of undue care with these pipes. The railway rate had been inclusive from works to site and delivery could be organised to meet the firm's needs. Nor was there any question of a low bridge so far as railway officials knew. A representative of B.R.S. (Pickfords) gave evidence of carrying loads of up to 16½ ft. to the site without difficulty, and also testified that there should be no difficulty regarding bridges. A special access road had been constructed to the site, which gave direct routeing from the railway terminal to the constructional point. Mr. Quin deferred the case until February 6 when he asked that qualified surveyors and a local railway representative should attend to give evidence regarding the details of routes and site conditions at the destinations.

Wages on Large Double-Deckers

RECOMMENDATION has now been announced by the Irish Labour Court on the applications by several trade unions for enhanced rates of pay for crews of larger capacity double-deckers of Coras Iompair Eireann (MODERN TRANSPORT, January 10). The court considered that crews of 66-seat buses should receive an extra 1s. per turn of duty and those of 74-seaters should get 1s. 9d.

No-Standing Talks to Go On

IT was learned last week that the employers' side of the N.J.I.C. representing municipal bus undertakings and their staffs had rejected the suggestion from the union side that standing passengers should no longer be permitted on vehicles. The unions concerned have been asking each major group of road passenger transport employers in turn to join them in asking the Minister to withdraw the regulation permitting standing passengers. The London Transport Executive and municipal authorities have now refused but the unions, unde-

terred, intend to continue to press the private bus companies and those controlled by the British Transport Commission outside London.

Birmingham Limited-Stop Route

A LIMITED-STOP bus service, the first of its kind in the city, between City (James Watt Street) and Glebe Farm will be started by Birmingham City Transport on February 16. Numbered 99, it will run over the same roads as 14 (City—Tile Cross) as far as Glebe Farm, but for the major part of its length will stop only where it crosses (a) the City Circle at Dartmouth Street, (b) the Inner Circle at Saltley and (c) the Outer Circle bus routes at Burney Lane—Cotterill Lane. After the latter point buses



A York 10-ton stake and rack semi-trailer behind a G.P.O. Seddon tractor. Swinging sections at side and rear facilitate unloading without unshooting. The 1,000 York trailer was recently delivered to B.R.S., which operates 220. On the right are three A.E.C. 9.6-litre engined 8-wheeled fuel oil tankers for a Bradford oil distributor

will stop at all the usual points. At present the service will work outwards only and only between 4.45 and 6.30 p.m., Mondays to Fridays. The minimum fare from the City and from Dartmouth Street will be 6d. and from Saltley 4d.

Leyton—Leydown Service Appeal

THE Minister of Transport has disallowed an appeal by Maidstone and District Motor Services, Limited, against the refusal of the Metropolitan Traffic Commissioner to grant a road service licence in respect of a new express service between Leyton, E.10, and Leydown, near Sheerness, Kent. For the application to be successful, he says, the service must be shown to be justified on the score of need, having regard to the adequacy of the existing services, and the extent to which the new service would afford substantially greater convenience to the passengers; and this need must be shown to outweigh the harm caused by abstraction from existing services. The evidence in fact did not show any substantial need for the new service. In particular, bookings were produced from a number of agents in areas which lie no more conveniently to the proposed new route than to the existing route (service E14).

The Minister agrees with his inspector that there

was substantial evidence of good bus and rail services from the areas that would be catered for by the new service to the picking-up points on the existing routes (services E14 and E19). He accepts that the proposed new service would make available more convenient and less expensive journeys to some; nevertheless, since the evidence of need was not substantial, and since the service would be likely to abstract traffic from the existing services the Minister is satisfied that he would not be justified in making an order on the commissioner.

Central Planning in Ceylon

A SINGLE transport authority with statutory powers for the co-ordination and control of all forms of transport in Ceylon has been recommended to the National Planning Council by a technical working group in a draft report on roads and road transport. The report also lays down the principles that should be applied regarding road-rail co-ordination. It recommends that the central transport authority should be vested with powers to deal with these matters. It is suggested that the



recent years in the goods carried in, and the areas served by, his fleet. He took exception to disclosing to his competitors the rate he was paid for paper to Inverurie. He knew British Railways would be after that traffic "like a dog after a rabbit." Any rates which were disclosed at the sitting could be used by British Railways to undercut him, but British Railways could not beat his company for service. Mr. R. R. Taylor, for British Railways, said that a charge of that nature came strangely from road hauliers. Until 1953, the railways had published their rates and the road hauliers had been able to undercut them. It was well known in the haulage world that that was one of the ways road hauliers were able to extend their traffic.

Smithfield Portage Committee

TWO months after the report on sources of industrial unrest in Smithfield meat market in London comes a preliminary attempt to secure an improvement in labour organisation there. The group set up at the end of 1958, representing all interests in the market, last week recommended that a committee be appointed representing interests at the central markets to deal with matters affecting portering not covered by existing negotiating machinery. The committee should be called the portage committee. Mr. E. A. Hornsby, clerk and superintendent of the Smithfield Market, would be chairman and the Wholesale Meat and Provision Transport Association, Limited, and the Transport and General Workers' Union would have representatives on it. But the 16 places on the committee are to be evenly divided between the various employers and the Transport and General Workers' Union, to which the "bumarees" belong, so that in effect any action will probably be initiated only on the chairman's casting vote.

The functions of the portage committee should be to give urgent consideration to implementing the recommendations of the committee of inquiry in regard to portering. It should also deal (says the report of the special group) with inter-stall portering so far as it affects retailers. Decisions of the committee should be binding on the parties, but if the committee failed to reach a settlement the difference could be dealt with by any procedure it agreed on. If the committee is unable to agree on the procedure the difference should be reported to the Ministry of Labour's conciliation department.

Bus and Coach Developments

D. J. and J. N. MacDonald, Bernera, seek the express service licence to Stornoway operated by D. H. M. MacIver. T. A. Jones, Llanyfynydd, applies for the express service licence to Carmarthen via Nantgaredig of H. I. Lewis. T. Farner, Moorhorpe, South Elmsall, applies for the miners services of A. R. Symonds. United Counties Omnibus Co., Limited, proposes to extend its Aylesbury—Cheddington Green service to Mentmore. Services of Macphail Brothers, Kilberry, are sought by Archibald MacEachern, Ardchyle, by Lubb, in respect of the Kilberry—Tarbert route and by McDonald and McLellan, Ardchyle, in respect of the Ormsay—Lochalphead. Norman Smith, Grantown-on-Spey, proposes an Airmore—Glenmore service on Wednesdays, Saturdays and Sundays in high summer. Victoria Tours, Limited, Tean, Stoke-on-Trent, applies for licences of Lymer's, Tean. Maidstone and District Motor Services, Limited, proposes to modify its Dartford—Gravesend—Borough Green—Eastbourne summer coach service (E.12). It would commence at Gravesend and operate via Dartford, Farningham and Sevenoaks. Bristol Omnibus Co., Limited, and Bristol Corporation seek to replace the two routes between Temple Meads Station and the Bus Station by a service between Temple Meads and Clifton (Zoo) via Centre, Park Street and Victoria Rooms.



Contractors for the 53-mile Luton Hoo-Rugby stretch are John Laing and Son Limited. Above, at Collingtree, Northampton, giant diggers bite into a 30 ft. bank while an Austin Gipsy on inspection stands by.



Constructing—and an Austin tipper delivers dry lean concrete foundation material. When finished, the new road will cover 4,000,000 sq. yds., with 3-lane twin carriageways, 3 viaducts and 150 bridges, flyovers and flyunders. Every 12 miles there will be service stations and restaurants.

Britain's first Motorway
Austins help to build £20 million highway

ON March 24th, 1958 work began on the London-Birmingham Motorway, Britain's first national highway of this century. Now a broad ribbon crosses the country as the road takes shape. Men and machines are working at full pressure—for scheduled completion date is October, 1959.

Invest in an

AUSTIN

Free personal benefits for drivers. Ask us for details.



THE AUSTIN MOTOR COMPANY LIMITED • LONGBRIDGE • BIRMINGHAM



Constant servicing is needed when hundreds of excavating and dumping machines work at full pressure. Welders (right) get busy on the fractured tow-bar of a TD 24 scraper. The welding unit is towed by an Austin Gipsy. Says welder-driver Whitlock: "If we can get round the foreman to lend us the Gipsy we always use her—we know we can get through in her when other vehicles just get bogged right down."

14,000,000 cu. yds. of earth will be moved to make the road. 90% of its length will be flatter than 1 in 50. The Austin 5-ton tipper (left) carries 30-40 loads of earth a day, has clocked up 7,000 miles in 3 months. Driver Loveday's verdict: "A very good truck. Comfortable too."



RAILWAY BREAKDOWN PRACTICES

Comparison of Equipment and Procedures Used

METHODS OF DIFFERENT ADMINISTRATIONS

RAILWAYS do not look forward to accidents or other breakdowns, but foresight demands that they be anticipated and that preparation be made to deal with them. Experience has shown that breakdowns cannot be guarded against completely and the occasional incident, though not always serious in itself, may have far-reaching effects, such as



British Railways steam crane about to lift a damaged coach by the floodlight of Tilley paraffin lamps

the closing of a running line, station, marshalling yard or motive power depot. Often of more importance than material damage is the loss of custom which, starting as a temporary diversion, may develop into a permanent loss, whilst there may be a significant loss of goodwill where passengers are severely delayed. It is, therefore, imperative that breakdown equipment and methods should be such as to facilitate rapid clearance.

High Standards Needed

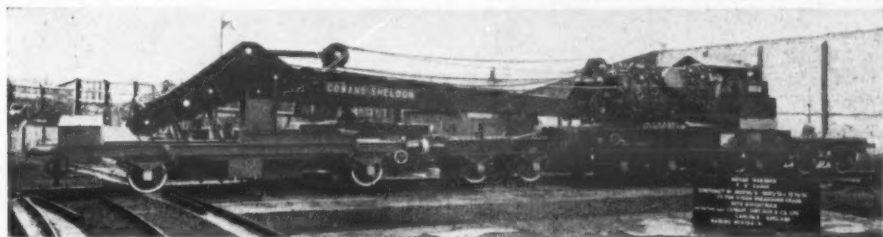
As important as the equipment itself are the employees who are to use it. The use of equipment

In many cases the re-railing ramps are designed by the railway itself and are anchored by clips and wedges to the rail. In Denmark and Britain, the Kelbus type ramp, manufactured by the Transport Engineering and Equipment Company, is used, the ramps being made in pairs for left- or right-handed use. There is also a Kelbus point ramp. All ramps are designed to guide the wheels of derailed rolling stock back on to the rail. It is of interest that British Railways has built a special compartment under its latest breakdown coaches for holding Kelbus and other heavy equipment.

At the present time, except where power-operated jacking systems are used, railways prefer mechanical to hydraulic jacks as they call for less maintenance. In selecting jacks it is essential that they be as reliable as possible, of minimum weight for a given lifting capacity, easy to operate and robust in construction. The orthodox jack is heavy to handle, and, for the re-railing of the smaller locomotives, the motor coaches of electric and diesel-electric trains or heavily loaded wagons, for which a lifting capacity of the order of 25 tons is required, the British Railways are making much use of the Hydralite light-alloy jack manufactured by Tangyes. Jacks of this type weigh only 32 lb. for 6-in. lift and 53 lb. for the 12-in. lift, which is about one-third the weight of equivalent power orthodox jacks. This firm also manufactures a 50-ton capacity jack with a 6-in. maximum lift, which weighs only 59 lb.

Deutschland Re-railing Equipment

German power equipment manufactured by the Maschinenfabrik Deutschland (M.F.D.) is employed by railways in many European countries, including the Belgian National Railways, the Danish State Railways, the German Federal Railway, the Norwegian State Railways, the Swedish State Railways and the Swiss Federal Railways. This apparatus is also being adopted to some extent by British Railways, whilst the Indian Railway Board has sanctioned the purchase of one set of M.F.D. equipment



A Cowans Sheldon 75-ton steam crane with a matchtruck for the 5 ft. 6 in. gauge section of the Indian Railways

calls for specialised knowledge, while the necessary devotion at times to long hours of arduous duty under adverse conditions makes it essential that the best possible staff be recruited and trained.

Basically, breakdown trains comprise vehicles for the accommodation of personnel and for the conveyance of equipment, together with, in most cases, a breakdown crane. On some railways, use is also made of road vehicles which can often reach the scene of the breakdown more quickly than a train. In this article it is intended to compare the broad lines of policy on a wide range of railways.

Existing Stock Adapted

It has been the normal practice of most railways to use adapted coaching or freight train stock as breakdown vehicles. There is, however, growing support for the concept that, in so far as tool vans are concerned, it is more economic in the long run to construct vehicles specially for the purpose, and indeed the Danish State Railways has adopted this policy in recent years. Although breakdown train vehicles on British Railways are still essentially converted bogie coaching train stock, the standard-type vehicles most recently put into service have been specially adapted to modern standards in railway workshops. One example is the train which went into service at Eastleigh Motive Power Depot in 1957.

Dealing first with the question of equipment, it is more usual to carry this in special tool vans, but composite vans may be used; equipment is also carried in the crane runner or jib wagon. The types and quantities of equipment vary appreciably between railways. Timber for the packing of cranes, jacks, etc., is always carried, although quantities differ widely. Most European railways, including British Railways, use hardwoods such as oak and beech for this purpose, but elsewhere practices are influenced by the type of timber readily available. Thus in South Africa, jarrah and pitch pine are used, whilst Oregon pine is employed in Australia and New Zealand.

Ramps and Jacks

The practices of the different railways in respect of equipment follow a certain pattern despite considerable differences in detail. Thus, in addition to a generous supply of hand tools (e.g. spanners, keys, chisel bars, punches, hammers, drilling braces, shovels and trenching tools), most railways consider as essential jacks, re-railing ramps, cutting apparatus and hauling gear. Medical supplies are also carried.

The use of ramps is one of the oldest methods of re-railing railway vehicles, and, in certain circumstances, it can still be one of the most effective.



Interior of a tool van on the Italian State Railways

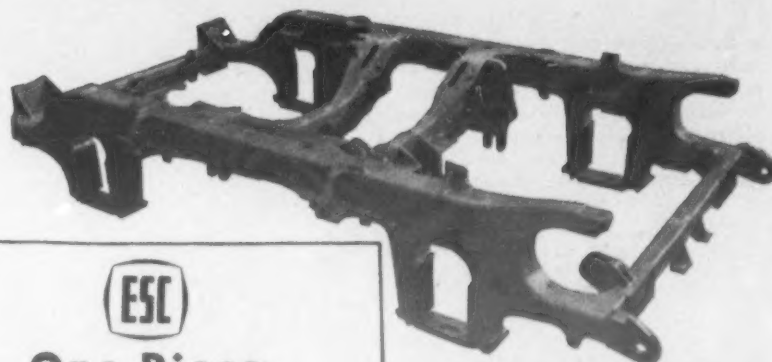
inch to work jacks and, secondly, the equipment incorporates the use of re-railing bridges or girders on which the jacks can be moved by a hydraulic ramp whilst supporting a vehicle or locomotive. The M.F.D. equipment is not, however, unique in being used in this way and re-railing bridges can be used with other types of equipment.

French Version

French National Railways does not utilise M.F.D. equipment but employs apparatus of somewhat similar design of earlier origin known as the "Poulain des Verins." This consists basically of very powerful oleo-pneumatic jacks of 50 to 100 tons capacity mounted on small four-roller trucks and arranged to run on pairs of rails. The rails are normally in 5-ft. section and can be coupled together to enable the jacks to be traversed over considerable distances under load. The jacks are worked from an independent pump unit which can be operated by compressed air from a locomotive brake system.

(Continued on page 12)

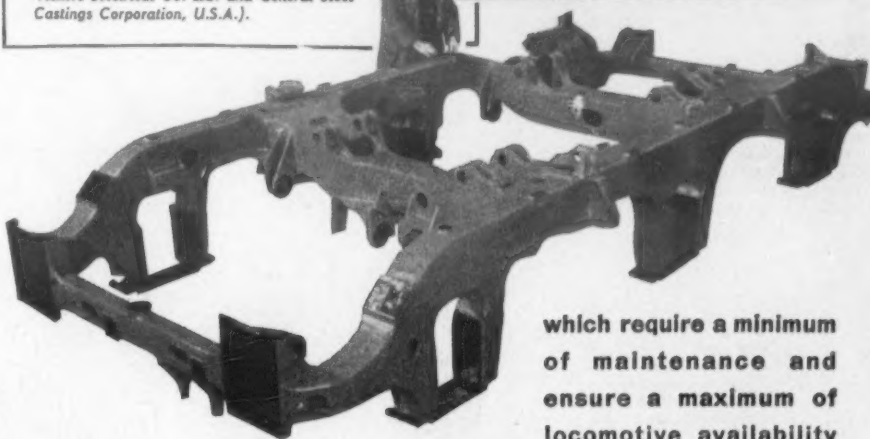
METROPOLITAN-VICKERS 1,200 h.p. Diesel-Electric Locomotives for BRITISH RAILWAYS
are fitted with . . .



One Piece Cast Steel Bogies

"Commonwealth" type

(designed in collaboration with Metropolitan-Vickers Electrical Co. Ltd. and General Steel Castings Corporation, U.S.A.).



which require a minimum of maintenance and ensure a maximum of locomotive availability



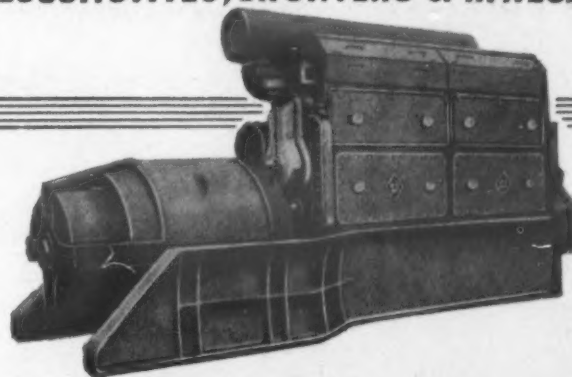
ENGLISH STEEL CASTINGS CORPORATION

River Don Works, Sheffield

A wholly owned subsidiary of English Steel Corporation Ltd.

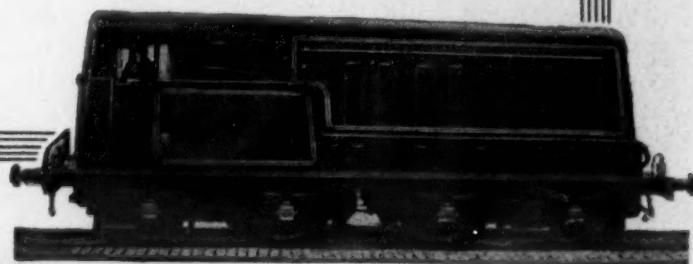
H & W Diesel Engines

for LOCOMOTIVES, SHUNTERS & RAILCARS



**TWO-CYCLE DIESEL ENGINES
AND
FOUR-CYCLE SUPERCHARGED DIESEL ENGINES
FOR
RAIL TRACTION**

Supplied as straight in-line or 'V' type units in powers from 250 b.h.p. to 2,000 b.h.p.



HARLAND & WOLFF

Enquiries: Queen's Island, Belfast; London Office: 9, Whitehall S.W.

BELFAST GLASGOW LONDON LIVERPOOL SOUTHAMPTON

L. 245 A

LETTERS TO THE EDITOR

Can Timetables be Understood?

The Editor is always glad to receive letters from readers on subjects germane to the transport industry, but these should be written as concisely as possible. The opinions expressed therein must not, however, be regarded as having editorial endorsement. Where correspondents desire to use a *nom-de-plume* it is essential that the Editor should be informed of the name and full address of the writer as indication of good faith.

SIR,—It is probable that readers of MODERN TRANSPORT are among the most experienced people in the use of timetables, but is there any one of them who can say he has never made a mistake in interpreting such symbols as *, †, a, b, D, TC and the like?

I feel the general public sometimes must have a very difficult time; new hazards seem to be introduced each year in the British Railways books. We now have runs "up to September 30 only," "commences some time next year," and by the end of a period, the amendment booklets (which we never have, anyway) are equal in size to the original timetable. It needs some knowledge of railway history even to know which region's timetables to look in, for a particular journey. Does every Mr. Brown of London Town know to look in the Eastern Region table for a journey (purely London Midland Region) from Marylebone, and I myself find it necessary to look in three timetables for a journey from Lowestoft to Dunfermline.

At the outset, Sunday services may have been the same as weekday ones, and on the Continent, in general, they so remain; but now Sunday services differ so radically from weekdays they are inevitably shown separately. But does not now the same argument apply to summer Saturdays (indeed, all Saturdays) and they should always be shown separately instead of practice varying from book to book and, indeed, within books.

Often one must raise one's gaze nearly six inches to see the vital letter E or S at the top of the column.

Having for a long time lived in London, I have been well served by the unofficial A.B.C. now found in every inquiry office, to give the first clue as to the main-line train from London. On moving to the provinces I have been baffled by the complexities of routes offered. Does one endeavour to travel direct, or, as is so often the case for speed, travel via London? Perhaps a pools permutation expert would care to calculate how many different timings there are between Taunton and Leeds by all routes.

Some Possible Improvements

Perhaps one may stimulate readers' thoughts on the subject of types of improvements which could be effected. Reference has already been made to the question of separate Saturday tables. The compilers themselves have introduced the diagrammatic maps with reference to table numbers on the lines. We might go farther in this direction. Another idea culled from the Continent would be to make a double spread of this map on the centre pages of the timetable, but add the refinement of thumb-print cut-outs with the numbers of table shown, so one can turn directly to the proper page.

Further thought is needed on the question of showing connections. At the moment we seem to show some, often not clearly, and often there are omissions. For example, if you wish to travel to Harwich, the timetable shows 6.54 a.m. (after turning overleaf) and the 9.45 a.m. departure from Liverpool Street. But in actual fact, if the passenger accepts the extra distance, there is a perfectly good connection off the 8.30 a.m., but via Ipswich, giving a very reasonable arrival at Harwich. Obviously we need timetables in their present form, for each section of the line, as a working timetable. Nevertheless, is the public interested in this? All the average traveller wishes

to know is what time the train leaves to enable him to get to his desired destination at the required time, hence the popularity of the A.B.C. in London, or for journeys via London, and as exemplified by station indicator boards which merely give a departure time and points served.

Basic Information

It seems, therefore, what is really required for ready reference by the public is a combination of the two items just mentioned, preferably pocket size, for each town or station. This would clearly be a task of immense magnitude, probably not economically justified, and consideration must be given to limiting the scope. There are perhaps 100 main centres in Britain, and I do not think it would be impossible to cover these stations, one with each of the others. To compress the information for practical printing purposes, each centre could be given a code number. Setting out on these lines and using the existing A.B.C. as a guide, the final production would be like this. Given that Edinburgh is No. 12, Aberdeen No. 1 and Birmingham No. 2, the first entry in the Edinburgh edition would read:

Edinburgh Edition (12)		Birmingham Edition (2)	
No. 1		No. 1	
Dep. 9.10 TC arr. 14.00		Dep.	
11.00 arr. 16.30		etc.	
etc.		etc.	
No. 2		No. 12	
Dep. 00.30 arr. 06.30		Dep. 06.00 arr. 12.00	
etc.		etc.	
etc.		etc.	

The example illustrates trains leaving Edinburgh for Birmingham at 12.30 a.m., and an opposite working leaving Birmingham for Edinburgh at 6 a.m. For the sake of space and clarity the 24-hr. system has been used, and this is yet another feature which could quickly be adopted for improvement of existing volumes. On the assumption that there are not more than 20 departures for each of the 99 centres, the details should take 33 pages measuring 4½ in. by 6 in.

Now electronically-produced timetables are not beyond the bounds of possibility, having fed into the brain details of the train services between centres, the machine could quickly produce the

connections for other centres by all routes, rejecting roundabout routes which take longer than another route commencing about the same time. The public is likely to travel only if it can find out with ease how to do it—the timetable is an important agent.—Yours faithfully,

JUMBO.

Measuring Smoke

SIR,—May we refer to the article in MODERN TRANSPORT entitled "Road Vehicle Engine Fumes" based on a paper by Mr. A. T. Wilford of London Transport Executive (December 20, 1958). It is an excellent one and to our minds illustrates admirably the most important need for proper maintenance and attention to diesel engine road vehicles. Mr. Wilford has mentioned the Hartridge-B.P. Smokeometer which we manufacture so that we feel it prudent to advise you of the latest situation with regard to the development of this piece of equipment.

Since the original work done by B.P. we have further developed and improved the meter so that it is now a fully fledged production article. Many large diesel engine manufacturers and operators in this country use the meter and we have also sold a considerable number in Europe. It appears, therefore, that the scientific approach to this question of diesel engine exhaust smoke is catching on and we are pleased to confirm that the B.P. Hartridge Smokeometer is available to everyone.—Yours faithfully,

E. H. ROBINSON,
Managing Director,
Leslie Hartridge, Limited.

9 Victoria Street, S.W.1.

What Moves at Night?

SIR,—You calmly report that "night traffic is excluded" from the latest road census. If statistics compiled from such an incomplete investigation have been used to bolster up the motorways programme in this country, I am indeed sorry for some future Minister of Transport having to explain the background of these concrete "white elephants." What possible justification could there be for omitting night operations from the investigation of any other form of transport, except perhaps the purely urban?—Yours faithfully,

J. C. PALMER.

Broadway,
Apuldrum Lane,
Chichester, Sussex.

[The wording of our paragraph was, candidly, intended to provoke comment. We are glad that it has.—Editor.]

Is Work Study the Cure?

SIR,—At last the technique of work study has come into its own. It is now a respectable branch of transport administration, but it has not always been so. In 1936 I read a paper, "Transport and Industrial Psychology," before the Metropolitan Graduate and Student Society of the Institute of Transport, which paper covered much the same ground as the recent one by Mr. D. McKenna (MODERN TRANSPORT, January 10). Unfortunately my paper did not then meet with official approval, although the basic facts and approach are still the same. The subject has always been there waiting to be explored.

Whilst there is now a more progressive outlook, however, work study is no panacea for our present industrial malaise, which includes the transport industry. What is wanted is an overall incentive applicable to and covering all grades. A proposition of this nature is of far-reaching importance. It would be extremely difficult to construct and delicate to operate. The fundamental basis of such a scheme would meet with many deep-rooted objections. The idea may sound Utopian and impracticable, but it might also be that such a line of thought is 20-30 years in advance, as some railwaymen were during 1930-38 on the question of work study, which, after all, is only one aspect of industrial psychology. It is my submission that this method—in some form—must eventually come about. The circumstances today are such that until a solvent of this nature is found and made operable the outlook in the transport world will always be troubled.—Yours faithfully,

ALFRED SAPSFORD.

49 St. Albans Road,
Seven Kings, Essex.

FILMS FROM EAST AFRICA

Varied Railway Activities

LAST week, the Commissioner for East Africa, Sir Arthur Kirby, welcomed guests to the first showing of three important new films produced by the film unit of East African Railways and Harbours. All were lively and managed to include stimulating shots of railway activity, including Beyer-Garratts in action. The first two were in colour. *Dar-es-Salaam—Gateway to Tanganyika* covers the building of the first deep-water berths to be built at the port of Dar-es-Salaam, ending with their ceremonial opening by H.R.H. Princess Margaret in 1957.

The other colour film, *East African Industries—Cotton*, is the second in a series of films made on East Africa's major industries, and deals with the production of cotton from seed to finished product. The first film in this series concerned sisal, and others in course of production deal with copper, coffee, tea and tourism. *Opportunities for Employment* shows the work of East African Railways and Harbours' new training school—founded by Sir Arthur Kirby, then general manager of the Railways in 1957. The school is run on public school lines, and takes European, Asian and African students. The film well illustrates the work that is being done to train future employees of all races. It is, of course, mainly intended for viewing in East Africa and should stimulate interest in the railway by the right type of lad.

W. R. Carpenter (New Guinea) and Co., Limited, Rabaul, has been appointed sub-agent for Leyland Motors, Limited, Australia, to handle the sale of Leyland and Albion vehicles in Papua, New Guinea, Solomon Islands, New Caledonia, New Hebrides, Norfolk Island, and the Gilbert and Ellice Islands. J. L. Chipper and Co., Limited, also of Rabaul, is appointed sub-agent for Leyland vehicles in the Bismark Archipelago, where Albion vehicles are also handled by W. R. Carpenter and Company.

'Darvic' p.v.c. ventilation
slats made by John Brown
& Co., Glasgow, in R.M.S.
Sylvania which they built
for The Cunard Steam-Ship
Company Limited.

'Darvic'
aboard
R.M.S.
Sylvania

Deckhead ventilation slats made from
'Darvic' p.v.c. by Thermotank Ltd.,
in R.M.S. Sylvania, built for The
Cunard Steam-Ship Company Limited
by John Brown & Co., Glasgow.

'DARVIC' P.V.C. SHEET has many valuable applications in marine engineering. Aboard R.M.S. Sylvania it was used for a few large ventilators on deck and six small deckhead ventilators in corridors. Three shower trays in first class cabins and six side light frames in tourist cabins are also made from 'Darvic'. 'Darvic' is a durable and handsome material—light, long-lasting and easy to keep clean. It is rigid even in thin sheets. It cannot rust or corrode and has good dimensional stability in atmospheres of varying humidity. 'Darvic' is sold in a wide range of colours and in multi-colour laminates.



'Darvic' is the registered trade
mark for the rigid p.v.c. sheet
made by I.C.I.



IMPERIAL CHEMICAL INDUSTRIES LIMITED · LONDON · S.W.1

SOUTH AFRICAN BUS

New Leyland for Rough Country

A HEAVY-DUTY two-pedal control passenger vehicle, specifically designed to meet cross-country conditions in the Union of South Africa, has been developed by Leyland Albion (Africa), Limited, at the company's headquarters factory at Elandsfontein. The new vehicle, aptly named Voortrekker, will augment the standard range of Leyland and Albion vehicles already marketed in the Union. It is expected to meet the

The Voortrekker has been constructed by using no more than six non-standard Leyland parts.

The Voortrekker is a forward-control four-wheeled chassis with 11.00-22 single tyres on the front wheels and twin tyres on the rear. Both axles are of the Leyland Super Beaver type, the fully floating rear axle having an overhead worm drive with 9 in. centres and a ratio of 6.5 to 1. It is powered by the Leyland O680 six-cylinder vertical



The Voortrekker passenger chassis developed by Leyland Albion (Africa), Limited, at its Elandsfontein plant

growing local demand for a large-capacity vertical-engined passenger vehicle capable of tackling the difficult conditions encountered in outlying districts.

Super Beaver Units

The first Voortrekker bus to be built will be operated by Greyhound Bus Lines, Limited, Johannesburg. Production of further buses is proceeding. The first vehicle was produced by utilising and extending the side frame members of the Leyland Steer six-wheeled goods chassis but in future it is proposed to use 36 ft. long Leyland Hippo frames to give the chassis a wheelbase of 21 ft. 6 in.

diesel engine which has a normal rating of 150 b.h.p. at 2,000 r.p.m. and torque of 450 lb./ft. at 1,100 r.p.m. Drive is through a five-speed semi-automatic Pneumo-Cyclic gearbox with an 18-in. diameter hydraulic coupling. Marles cam-and-double-roller steering is employed, as on the Leyland Super Beaver.

This is the first Leyland chassis to be designed and built with a view to quantity production in South Africa and it is anticipated that the Voortrekker will represent the pattern of future Leyland heavy-duty passenger chassis for country passenger services in the Union, where indifferent road conditions are encountered.

DOUGLAS DUMPERS

Four-Wheel-Drive Range

BASIC components, which include some Commer running units, employed in its existing range of specialist all-wheel-drive vehicles have been used by Douglas Equipment, Limited, Cheltenham, in the development of a range of dump lorries recently introduced to cover carrying capacities of from 2 to 15 cu. yd. About midway in the range is the Type M44, a four-by-four vehicle with a maximum capacity of 8 cu. yd. (6 cu. yd. struck). This chassis has a wheelbase of 9 ft. 6 in., an overall width with standard tyres of 8 ft., overall length of 16 ft., height of 9 ft. and front and rear track of 5 ft. 7 in.

It is based on a channel-section frame of welded and bolted construction having heavily reinforced



A Douglas M44 four-wheel-drive chassis fitted with a Dumpcrete body in service of the McAlpine company at Bradwell nuclear power station site

sidemembers, fitted with heavy-duty semi-elliptic leaf springs and direct-acting telescopic dampers front and rear. Cam-and-double-roller steering gives a turning circle of about 48 ft. and the brakes are direct air-pressure-operated at the rear and air-hydraulic at the front. The handbrake operates the rear shoes mechanically. Standard tyres are Dunlop Trakgrip 11.00-20 16-ply, single front and twin rear.

Rootes Diesel Engine

The standard power unit is the Rootes three-cylinder opposed-piston two-stroke diesel engine of 199 cu. in. (3,261 litres) capacity, developing 105 b.h.p. at 2,400 r.p.m. and 270 lb./ft. torque at 1,200 r.p.m. The drive is taken through a 13-in. single dryplate clutch and unit-mounted commer four-speed synchromesh gearbox, thence through a Douglas standard two-speed transfer gearbox and Hardy Spicer needle-roller-bearing shafts to the driven front and rear axles. Axle ratios are 7.2 to 1 and the auxiliary gear-box has ratios of 2.204 and 1 to 1, providing a range of eight ratios from 115 to 1 to direct drive. With a gross vehicle weight of 16 tons, the vehicle has a maximum tractive effort of 15,560 lb. and gradient ability of 1 in 24. Maximum speed is 40 m.p.h. Petrol or other types of diesel engine are available to special order.

The cab is a single-place steel structure with safety glass all round and the standard 6-8 cu. yd. body is scow-ended and of all-steel construction. The body underframe is of rolled-steel channel sections braced to take the tipping-gear thrust and shock floor loads. A sandwich floor has a 1½-in. hardboard layer interposed between steel sheets, the bottom one of which is welded to the frame and the top bolted for easy renewal. The sides and front end are of steel plate with channel uprights and top and bottom rails and the front is extended over the cab as a protective canopy. A twin-ram hydraulic tipping gear gives a 70-deg. tip in 9 sec. and the operating linkage and ram mountings are designed to relieve the chassis frame of tipping stresses.

REACH TRUCKS

Introduced by Conveyancer

TWO reach fork trucks, one of 2,000-lb. capacity, the other a 3,000-lb. version, are now in production by Conveyancer Fork Trucks, Limited. Introduced at the Mechanical Handling Exhibition last year, these two additions, designated RE2-24 and RE3-24 respectively, are of course battery-electric stand-on drive trucks, designed to turn in a 72-in. gangway with a 40 in. by 40 in. load and stacking to a height of 14 ft. One of the special merits of the reach truck in



The Conveyancer four-wheel reach truck

relation to existing premises is its low unladen weight by reason of the reduction of the counterweight element necessary in a conventional fork-lift truck.

The Conveyancer reach trucks are four-wheeled models, with traction drive on the left-hand rear wheel. This driving wheel is 10 in. by 4 in. in measurement; its companion rear wheel is an 8 in. by 3 in. non-steering castor wheel. A combined lift or lower forward or reverse travel and speed control lever and a reach control lever provide for all truck functions. To prevent any overloading of the traction motor the combined control incorporates a switching device which prevents the motor running at top speed too quickly and also prevents too rapid reversal. Speed of all operations is increased according to the distance the lever is moved from the neutral position and stepless acceleration is therefore provided. The unladen weight of the 2,000-lb. capacity truck is 3,650 lb. and that of the 3,000-lb. truck is 3,800 lb. These models and other recent additions to the Conveyancer range of hand- and power-operated trucks will be seen at the Factory Equipment Exhibition at Earls Court on April 7-17.

Ashenhurst, Williams and Co., Limited, 12-15 Talbot Place, Store Street, Dublin, already agent for Leyland and Albion in Eire, has now been appointed agent for Scammell Lorries, Limited, throughout the Republic.

Two new British Standards published by the British Standards Institution, 2 Park Street, London, W.1, are BS292:1958—Dimensions of ball and parallel-roller bearings (65 pages, 56 illustrations, price 12s. 6d., postage extra to non-subscribers) and BS1574:58—Split cotter pins, price 4s.



"My word! you look comfortable..."



"Certainly I am, this cab is a beauty."

"That job's a bit hard on the wagon, isn't it?"

"This HERON comes through all right, it's designed for the job. A custom built truck you know, made from the right stuff."

"My PAX II's just turning a hundred thousand and feels good for another."

"She certainly looks easy to load and unload, that platform is well down below average."

"Oh yes, but then Dennis specialise in low loaders and they have a dozen different ways of getting the deck nearer the ground."

"Dennis certainly think about the driver and they're the truck for me!"



Dennis vehicles are used extensively by large and important concerns throughout Industry and Commerce.

Like all DENNIS vehicles, they are designed to fulfil all possible transport requirements.

Fullest information and the name of your nearest distributor will be gladly sent you.

DENNIS

DENNIS BROS LTD GUILDFORD

Small's D5

Humber's greatest Hawk

Fine bodywork welded by Saturn-Hivolt

Surge Injector Welding Units



Notable always for the highest standard of bodywork, Humber recently announced

their greatest 'Hawk'. In this, as in many previous

models, Saturn-Hivolt Surge Injector Welding equipment and Saturn

Argon are used for many of the important welding operations. Saturn cutting

and welding equipment has, for many years, played a big part in industry. The

new Saturn-Hivolt Argon Arc Welding Machines offer the finest welding of

aluminium and its alloys and stainless steel. Let us show you the

complete range supplied and maintained from our many

branches throughout the country.

SATURN INDUSTRIAL GASES LTD



Saturn Works, Gordon Road, Southall, Middx. Phone: Southall 5611

BRANCHES:

GLASGOW · BIRMINGHAM · MANCHESTER · SHEFFIELD
LYMINGTON · SUNDERLAND · THORNABY-ON-TEES

NEWS FROM ALL QUARTERS

Less
service bay days—
more
pay days!



FERODO

Anti-Fade Brake Linings

Your service bay is within easy reach of a Ferodo Wholesaler (there are five hundred of them) or one of the twenty Ferodo Depots. So they can always deliver Ferodo Brake Linings, to match any vehicle, efficiently and quickly. You'll have your trucks back in service without wasting time—precious time. That's economy!

Once on the road, drivers know they'll get the hardest wear out of Ferodo Linings; even harsh driving conditions, caused by weather or traffic, don't interfere with the smooth, even braking power of Ferodo Linings.

ORDER THROUGH YOUR NEAREST FERODO WHOLESALE OR DEPOT—JUST MAKE A LOCAL PHONE CALL.

FERODO LIMITED • CHAPEL-EN-LE-FRITH
A Member of the Turner & Newall Organisation

Technical advice can always be given, too.

Pullman Excursion to Cardiff

The first Pullman train excursion on the Western Region was run on January 17 from Paddington to Cardiff for Rugby enthusiasts attending the England v. Wales international.

Annual Census of Motor Vehicles

Provisional figures show that in the September quarter of 1958 there were approximately 7,904,400 vehicles licensed in Great Britain, an increase of 477,300 or 6 per cent, compared with 1957. Goods vehicles were up by 4 per cent, hackney vehicles dropped 2 per cent, cars were up by 8 per cent.

Netherlands Railways Feels Road Competition

The Netherlands Railways states in its report for 1958 that goods tonnage carried by rail over the year had fallen by 8 per cent on the 1957 total and revenue yield fell by 7 per cent. These results are said to be due partly to the reduced traffic in coal but mainly to increased competition from road carriers.

First-Class Reduced Fares

More first-class fares are being reduced on Saturdays by the London Midland Region. In addition to the 23s. reduction already in operation between London, Euston and St. Pancras and Manchester which has operated since November 1, there will be reductions until April of 24s. between Liverpool Lime Street and Euston and 51s. between Glasgow Central or St. Enoch and Euston or St. Pancras.

Canny Scots Shun Parking Charges

Traffic surveys in Glasgow since the parking restrictions came into force last year indicate that most car owners are unwilling to pay a parking fee if they can possibly avoid doing so, it is stated. Full advantage has not been taken of the private garage space already available, but the volume of cars entering the city in the period since they were denied central parking has decreased by only 200, or 3 per cent. The remainder is mostly parked in streets bordering the restricted area.

New Halts on Railbus Routes

Diesel railbuses will be introduced on the Western Region Kemble—Cirencester and Kemble—Tetbury branch lines on and from February 2. They will be the first sections of line on the Western Region to be served by this new type of vehicle, which will provide seating accommodation for 46 passengers with a small area for luggage. Services over both branches will be intensified, Cirencester being served by 14 trains in each direction Mondays to Fridays and 16 on Saturdays compared with the present service of 10 Mondays to Fridays and 12 on Saturdays. On the Tetbury branch there will be eight on Mondays to Fridays and nine on Saturdays compared with five on Mondays to Fridays and six on Saturdays as now. New halt facilities will be afforded at Chesterton Lane on the Cirencester branch, and at Church's Hill, Culkerton and Trouble House on the Tetbury branch.

Railway Salesmen in North-East

The first issue of a new "Sales Bulletin" has been issued by Mr. W. H. Vine, North Eastern Region commercial officer, to all commercial representatives and district officers. Its primary purpose is to keep them up to date on railway service innovations.

French Autoroutes

Plans have been announced for two new autoroutes in the Paris region, one running north of Paris between St. Denis and Senlis, the other between Corbeil—Essonnes and Nemours, with a branch joining Route Nationale 7.

Leitrim—Cavan Line Closing

Coras Iompair Eireann is withdrawing all passenger and freight-train services from the Leitrim and Cavan narrow-gauge section from April 1. It is intended to provide adequate alternative road services for both passengers and merchandise. The Ballyhaise—Belturbet line closes on the same date.

Rail Accidents Inquiry

The Medical Research Council is to carry out an independent investigation into the causes of railway accidents. It will seek to find out why it is possible for railway drivers and motormen to pass danger signals for no apparent reason. The investigation, requested by the British Transport Commission, may last two years.

Incline Railway Site for Sale

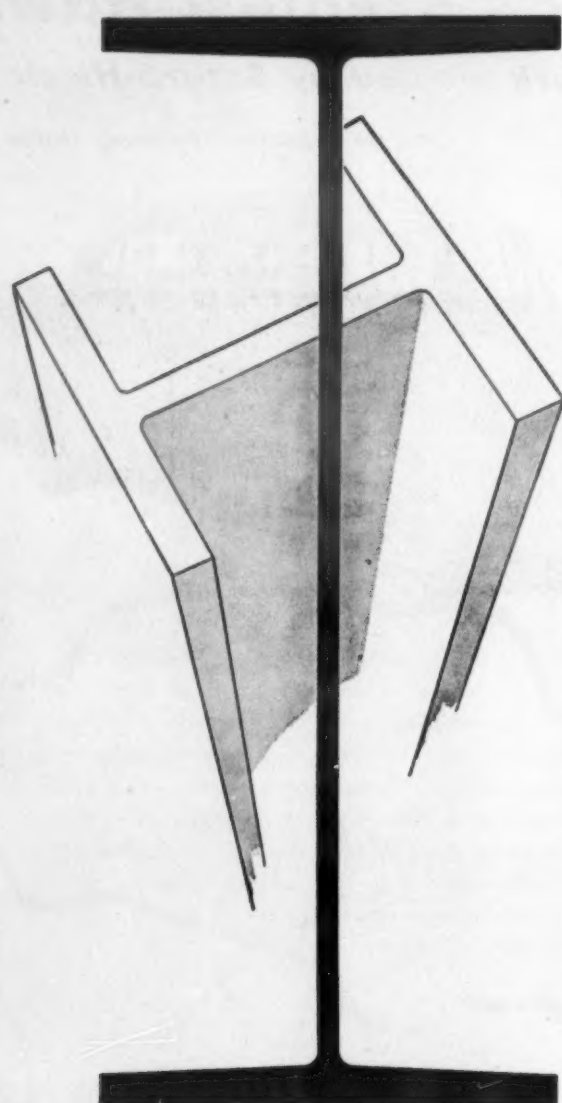
A railway owned by the Clay Cross Co., Limited, and built to carry limestone from Crich Cliff Quarry to the company's works at Ambergate, two miles away, is up for sale. It is worked by gravity, and after 100 years of use was abandoned last year as too expensive. The company now buys limestone from quarries at Matlock. Part of the railway and five acres of adjoining land have been offered to Crich Parish Council for £5.

Christchurch—Lyttelton Road Tunnel

Plans and specifications have been approved by the Christchurch—Lyttelton Road Tunnel Authority for the construction of the proposed road tunnel through the Port Hills between Christchurch and the port of Lyttelton in New Zealand. Estimates of costs are expected to be available by the end of this month and application will then be made for consent to a loan. The tunnel will be 6,500 ft. long and 28 ft. wide.

The Knightsbridge Road Scheme

Rebuilding of the Knightsbridge—Brompton Road—Sloane Street intersection was considered by the L.C.C. at its meeting this week. A private development plan incorporates earlier proposals for a large traffic circulation system at this point, with an east-to-west base formed by a new road between Sloane Street and Brompton Road. The northern end of Brompton Road would be diverted to enter Knightsbridge opposite the eastern end of Knightsbridge barracks. An enlarged roundabout scheme is at present being completed at this junction.



BUILDING FASTER

Our new Universal Beam Mill is rolling a new range of sections which are already simplifying steelwork and will lead to substantial economies.

REDUCING PLATE WORK

By providing steel sections 'tailor-made' in different weights to suit structural requirements, much of the riveted-on plate work of columns and beams will be abolished.

MAIN SPANS OF BRIDGES

Deeper and stronger beams will carry loads which previously required built-up girders, and many of the beams can be used straight from the mill for the main spans of bridges.

This simplification will lead to faster fabrication of steelwork, whether for bridges or buildings.

In addition the British Standard beams, channels and angles are still available.

DORMAN LONG

COMMERCIAL AVIATION

B.E.A. Defrosting Method

PILGRIMS BY AIR

A NEW method of treating aircraft during severe winter weather conditions with defrosting fluid before take-off has been developed by British European Airways. By using two Bedford 7-ton lorry chassis on which are mounted 40-ft. Simon hydraulically operating towers and spraying equipment, it is possible to cover all the external surfaces of a Viscount with a liquid defrosting compound in less than 30 min. which means that the time required previously is cut by more than half. The defrosting compound, which is a mixture of Kilfrost DC2 and water, is preheated according to requirements up to 70 deg. C. in a special 1,000-gal. storage container and transferred to a 250-gal. tank installed in the Bedford vehicle. This tank is lagged to avoid heat loss and the fluid is delivered through flexible pipes to 6-ft. lances that are manipulated by operators standing in cages at the top of the towers. Delivered in sweeping movements with the lances through spray nozzles, the fluid reaches the entire surfaces of the wings, fuselage and tail unit with great rapidity. This new defrosting equipment was evolved by the maintenance branch planning office of B.E.A. and is now in use at London Airport.

Hawker Siddeley and Avro 748

The Hawker Siddeley Group announced recently that it had authorised its aviation division to develop as a private venture the Avro 748, a new short-medium range turboprop airliner. This decision followed the group's success with its other private venture, the Armstrong Whitworth Argosy freighter-coach which is to be ordered for R.A.F. Transport Command. The Avro 748 will carry 36-44 passengers, be fully pressurised and will have two Rolls-Royce Dart engines. The target for its first flight is early in 1960.

Bristol Seeks Freedom

Representatives of Bristol Corporation recently appeared before the Air Transport Advisory Council in support of an application by Derby Aviation for licences to run air services from Bristol to the Continent. Derby Aviation wants to run regular services to Perpignan, Majorca, Nice and Luxembourg. At present it serves these centres on a charter basis. The Bristol Corporation action arose from the airport committee's dissatisfaction with Cambrian Airways, which is reported to be discontinuing its Manchester to Bristol service from April 1. This would leave Jersey and Paris as the only two destinations Cambrian would serve from Bristol. The corporation would like Bristol Airport to be the scene of an experiment in which any operator prepared to run services from there would be given the opportunity to do so.

Aer Lingus and Air Pilgrimages

Aer Lingus pilgrimage traffic, boosted by the Lourdes centenary celebrations, last year broke all records. By the end of the financial year in March, it is estimated that the company will have carried about 50,000 people on services between Dublin and Lourdes, Rome and Lourdes, Barcelona and Lourdes, and on charter flights. Last year between April and the end of October—the period in which Aer Lingus operates scheduled services into Lourdes—the airline carried 13,500 passengers in and out of Lourdes on its service from Dublin, 5,000 on the service from Barcelona and 3,500 between Rome and Lourdes. Almost 25,000 pilgrims travelled on charter flights between Ireland and Lourdes, while 2,600 travelled on charter flights from points outside Ireland. In addition 1,500 air charter pilgrims will travel from Ireland next month. Next summer the inauguration of a Dublin-Lourdes-Lisbon service will connect the Lourdes shrine with that at Fatima.

B.E.A. Expectations

British European Airways expects to carry more than 3 million passengers for the first time this year, the 40th anniversary of the start of civil air transport. In his latest letter to the staff Lord Douglas of Kirtleside, the chairman, recalls that on May 1, 1919, he was pilot of a Handley Page 0/400 carrying 10 passengers from London to Manchester—this, he feels, could be regarded as the first proving flight over a route in today's domestic air network. Plans were now well ahead for the introduction of the Comet 4B jets to B.E.A. service. Ten pilots and a number of engineers were now attending training courses at the de Havilland Servicing School at Hatfield. The pilots' course, which lasted seven weeks, covered engineering training and included time at the Rolls-Royce factory at Derby to study the Avon engines which powered the Comet. Later, the pilots would get flying training at Hatfield and this would be followed by a period with R.A.F. Transport Command, during which the pilots would gain operating experience on the R.A.F. Comet 2s. There would eventually be a total of 90 pilots in the B.E.A. Comet Flight. "As regards the aircraft themselves, production is now well under way at Hatfield. . . . We expect to begin taking delivery of our Comets later this year and to start our first pure-jet services with these aircraft early in 1960."

Future of Southampton Airport in Doubt

Southampton Airport has just over two more years' existence—unless the local authorities in the area are prepared to share in financing its operation. The airport consultative committee was told at its latest meeting that the Minister of Transport flatly refused to foot the bill to keep the airport going after 1961. There was no guarantee that British European Airways would continue to use it, and without a hard runway—which would cost at least £200,000—the field would not be suitable for modern air liners such as Viscounts. Southampton Corporation has already decided not to buy the airport back from the Ministry because of the financial burden of running it and the capital expenditure involved. Dr. Horace King, M.P. for the Itchen division, reported to the committee on an interview with the Minister, at which he was accompanied by Mr. John Howard, M.P. for Test, and Mr. David Price, M.P. for Eastleigh. He considered that in the circumstances, the decision of Southampton Corporation was not only the right one, but the only decision they could make. The Minister, said Dr. King, had made it quite clear that while he was prepared to sell the airport back to the local authority, he would not subsidise its running. The committee agreed to get in touch with neighbouring councils, and also Hampshire County Council, to seek their opinions on the airport's future and to invite them to a conference.

DEVELOPMENT OF DODGE



MR. WILLIAM WALLACE

A well-known figure in the motor industry both at home and overseas, Mr. William Wallace has, after 25 years with the two companies, retired as chairman and managing director of Chrysler Motors, Limited, and Dodge Brothers (Britain), Limited. Born in Newcastle upon Tyne, in 1893, he attended a preparatory school in that town, continuing his education at Sedburgh and finishing it in Germany. He returned to England in September, 1914, just in time to join the Army. Serving with the Royal Field Artillery, wherein he attained the rank of major and later with the Royal Flying Corps (which became the Royal Air Force), he saw service in France with both. After demobilisation early in 1919 Mr. Wallace went to the United States where he joined General Motors Export Corporation, and the following year went out to South Africa as its representative. A year later he joined the White Motor Company in Cleveland, Ohio, and spent the next 11 years between Cleveland, South Africa, Australia and Canada. In 1933 he joined the Chrysler Export Corporation in Detroit and came to the United Kingdom to take up the position of sales manager of Dodge Brothers (Britain), Limited, particularly to develop lorry sales. In the year he took up his appointment the first British-built Dodge vehicles were introduced and given the name Surrey Dodge. Thereafter the American content in the Dodge range was gradually reduced until today the Dodge lorry is entirely British in design, labour and content; in 1934 Mr. Wallace was appointed sales director. During the war years 1939-45 Chrysler-Dodge turned over to aircraft production and produced the Handley Page Halifax bomber fuselages as members of the London Aircraft Production group. On the cessation of hostilities, production of the prewar lorry model was continued and Mr. Wallace was appointed managing director. Thereafter, under his direction, production at Kew was greatly increased, new models introduced and the factory and office premises extended. Vehicles produced at Kew are exported to over 50 countries throughout the world as well as being marketed in the British Isles. Particular pride is taken in the company's export record, a high percentage of Kew-built vehicles going overseas to earn valuable foreign exchange. In 1956 Bill Wallace was appointed chairman and, considering himself a "truck man" through and through, has guided Dodge Brothers and Chrysler Motors through their progressive expansion, while he has also served on many committees of the Society of Motor Manufacturers and Traders. He is a keen shot and a fisherman. His many friends in the industry throughout the world will wish him the active and happy retirement which he has so well merited.

IN PARLIAMENT

B.T.C. Break-Even Date

DENATIONALISATION DENIED

REPLYING to the debate on the third reading of the Transport (Borrowing Powers) Bill in the House of Commons on January 21, Mr. Harold Watkinson, Minister of Transport, said that the most important point that had come up was that of the break-even date for the Transport Commission. The date originally envisaged, 1961-62, was, he pointed out, not selected by the Government. The setback in 1958 had affected that but the revised forecasts of results in 1958 had not been falsified by events and on the passenger side in the latter months of 1958 there had been definite and ascertainable improvement. The B.T.C.'s own gauge had been so far the basis for the Government's financial arrangements and it remained. If it came to a need for a reappraisal (of break-even date), it was up to the Commission to tell the Government and the country, but that position had not been reached yet.

Highway Law Consolidation Bill

A Highways Bill, containing 311 clauses and 26 schedules, was published last week to consolidate legislation in this sphere dating back to the reign of Henry VIII. It was prepared by a committee, under the chairmanship of Lord Reading, which was appointed jointly by the Minister of Housing and Local Government and the Minister of Transport in February, 1958. The committee's report was also published last week. (Cmd. 630, H.M.S.O., with draft of Bill, price 9s.)

Further Denationalisation Denied

MR. ERNEST DAVIES asked the Minister of Transport what formal representations he had received from members of Parliament in regard to future transport policy and, particularly, relating to proposals for disposal of ancillary undertakings of the British Transport Commission during the recent recess [a reference to recent statements attributed to Conservative back-benchers—Editor]. Mr. H. WATKINSON told him that he had received no representations during the recess on the subjects referred to. In the debate on the Transport (Borrowing Powers) Bill that followed, Mr. GEOFFREY WILSON, now vice-chairman of the Conservative Party Parliamentary transport committee, said that published reports that there was a move to dispose of such undertakings were inaccurate. Both the chairman and secretary of the committee have similarly denied the accuracy of the reports.

PUBLICATIONS RECEIVED

NEW LIGHT ON FOUR-WHEEL-DRIVE LOADER INDEPENDABILITY. An illustrated descriptive brochure by Chasidre Engineering Co., Limited, Aldwych House, London, W.C.2, covering the company's new Loadmaster 8000 loading shovel.

DORMAN LONG ILLUSTRATED. Published by Dorman, Long and Co., Limited, G.P.O. Box 1, Zetland Road, Middlesbrough, to describe and illustrate the company's massive development plan, which has been proceeding for more than 10 years and is now nearing completion.

CARTOON COURTESY CODE. A new booklet of cartoons illustrated by Brockbank highlighting safe driving advice from the Highway Code. Published by the Automobile Association and obtainable free from A.A. offices, it is a timely reminder that all drivers, however experienced, would benefit from occasional references to the Code.

NEWS IN PICTURES. The annual publication by the British Petroleum Co., Limited, Britannic House, Finsbury Circus, London, E.C.2. Worldwide activities in prospecting, production, refining and transport as well as subsidiary activities are comprehensively covered in excellent pictures and informative captions and text.

ROAD RESEARCH TECHNICAL PAPER No. 49, *The Polishing of Roadstone in Relation to the Resistance to Sliding of Bituminous Road Surfaces*. (Published by H.M.S.O. for D.S.I.R., price 3s. by post 3s. 4d., or 84 U.S. cents.) Describes a simple machine that has been developed by the Road Research Laboratory to determine the degree of tendency to polish of various types of stone used in surface dressings. The results of laboratory and full-scale tests carried out over the past five years to verify the results obtained with the machine are also given.

PRESSED STEEL COMPANY, LIMITED. A most handsome book published by the Pressed Steel Co., Limited, to illustrate and describe the work of its motor, Prestcold and railway divisions. Interesting historical matter is included; it indicates the phenomenal growth of the company since its formation in 1926 and outlines the advanced production methods employed to achieve its outstandingly high production. To assist overseas readers, a summary of the Pressed Steel story is printed in the book in seven foreign languages, including Russian and Chinese.

POWER FOR THE FUTURE. A booklet published on December 16, 1958, by the Electricity Council, which is now the central body representing the whole of the electricity supply industry in England and Wales. Prepared in connection with the Electricity (Borrowing Powers) Bill and forming a sequel to the similar publication, *Power and Prosperity*, of the former British Electricity Authority in 1954, the booklet outlines the development of electricity supply in the past and gives an estimate of the rise in demand over the next few years, together with an indication of the cost up to 1964-65 of providing the power requirements of an expanding national economy.

AN INSTITUTE DINNER

Berks, Bucks and Oxon Section

THE annual dinner of the Berks, Bucks and Oxon section of the Institute of Transport was held in Reading on January 22 and was presided over by Mr. A. E. Smith, chairman of the section. The "Institute and the Section" was proposed by Mr. W. L. Thomas, who declared that no one but a fool would ever bring a car into Reading. On the subject of motorways he said that a mile required 14 acres of farming land worth perhaps £800 a year; as a motorway it was worth £30,000 a year. In his response Major-General G. N. Russell, president of the Institute of Transport, expressed pleasure at the presence of Mr. L. C. F. Bellamy, formerly general manager of the Hong Kong Tramways, and of Mr. F. H. Cave, a past-president. Could ordinary members of the Institute work out some sort of policy for the future of transport? The Institute had some thought for the training of youth for the future of transport in endowing a seat at Oxford. Transport was not cutting the other man's throat but a service to the community. The Institute demanded a standard of education and professional qualifications, it provided a forum for discussion, and last but by no means least it provided for good fellowship.

Mr. C. O. T. Purcell ably proposed "The Guests," to which Mr. D. L. Munby, the newly appointed reader in transport at Oxford, replied. He confessed that academics did not necessarily shed much light on transport problems, but he hoped to learn. Transport was not only a great civilising influence; it had always been considered a great nuisance. That was something we should not complain about or be worried about. Mr. T. G. Pruett proposed the health of the chairman and indicated some of his prowess in building up a coach business founded in 1918 as well as his interest in public affairs (he is a former Mayor of Reading and is also, among other things, a member of the Thames Conservancy Board), to which Mr. Smith replied.

ANGLO-CONTINENTAL CONTAINER SERVICES

(LONDON) Ltd. and (BELFAST) Ltd.



House flag flown by ships of A.C.C.S.

● DAILY SAILINGS

* * * *

● ENQUIRIES INVITED

ENGLAND, SCOTLAND & N. IRELAND

Ports of Shipment being: Preston (Lancs.), Larne (Co. Antrim) and Ardrossan (Ayrshire)

BELFAST: 35/9 Middlepath St. Belfast 59261/5
LARNE: (Co. Antrim) Bay Road. Larne 2331/2
PRESTON: (Lancs.) The Dock. Preston 86742/4
MANCHESTER (2): 270/1 Royal Exchange Buildings. Blackfriars 9287/9
BRISTOL (1): 61 Park St. Bristol 25435/6

ARDROSSAN: (Ayrshire) Harbour Street, Ardrossan-Saltcoats 1911/2
GLASGOW (C.2): 10 Bothwell St. City 6997/8
LONDON: (Depot) Eiland Rd., S.E.15. New X 4885/7
LONDON: (Offices) 79 Dutton Rd., S.E.1. Bermondsey 4881/4

Follisain-Wycliffe
FOUNDRIES LTD.

SPECIALIST PRODUCTS IN "CY" ABRASION-RESISTING ALLOY

LOCO BRAKE BLOCK LIFE extended from 3 months to 2½ years

This is typical of the extra service being obtained from our CY Alloy Brake Blocks— which although remarkably resistant to wear, have no adverse effect on loco tyres. This is one of our most popular applications. After exhaustive tests many of the best known manufacturers of locomotives & CY brake blocks as detailed.

FOLLISAIN-WYCLIFFE FOUNDRIES LTD.
LUTTERWORTH - Near RUGBY
Tel.: Lutterworth 10, 60 & 132
Grams: "Wycliffe," Lutterworth

The 5th edition (1958-59) of
WORLD RAILWAYS
 contains details of:-
 1,500 railways in 100 countries;
 33 underground systems;
 201 major manufacturers;
 modern techniques and equipment.

The information given in this illustrated world-wide survey will interest everyone concerned with the finance, construction, operation and equipment of railways and the associated manufacturing industry throughout the world.

£5.5.0d.

Please send for illustrated brochure containing specimen pages, or ask your bookseller to obtain a copy of **WORLD RAILWAYS** for your examination.

SAMPSON LOW
25 GILBERT STREET, LONDON, W.1

HYDRAULIC RUBBER PRESS

B.I.P. Engineering Unit

RECENTLY introduced by B.I.P. Engineering, Limited, Streetly Works, Sutton Coldfield, is a new 125-ton upstroking oil hydraulic rubber press designed as a multi-daylight self-contained unit particularly for use in rubber moulding and general laminated work. The press is of extremely rigid prefabricated steel plate construction, with an overhead oil supply tank and powered by a 10-h.p. Brooke electric motor driving a Vickers vane-type pump capable of delivering 22 gal. of oil at 1,000 p.s.i. This supply pressure is then increased by a Bipel 4:1 intensifier, thus attaining the 125 tons available in the main ram. A floating-piston gas-type accumulator is used in the hydraulic circuit to stabilise the pressure during operation. This, with a special Bipel unloading valve, maintains a pressure differential of plus or minus 5 per cent without continuously loading the pump.

The standard machine is available with four daylights, each of 4½ in. (maximum) with a working area of 20 in. by 21 in. The platens provided are for steam heating and tested to 300 p.s.i., although Bipel electric induction heating platens, each rated at 5 kVA, are available as an optional extra. The press is intended for manual control but a process timer can be incorporated for cures up to 30 min., giving automatic opening on completion of the preset cure. This gives the advantage of having only one operator for several machines.

ROTOL EXHAUST TURBOCHARGER

Pressure-Ratio Control

EXHAUST turbochargers for diesel engines developed by the industrial division of Rotol Limited, Gloucester, were, as we recorded in our November 22 issue, exhibited at the Public Works Exhibition in a range of sizes suitable for engines from 50 to 600 h.p. Features of the Rotol unit are simplicity of construction and lubrication effected directly from the engine system, with a secondary filter incorporated in the main housing. To enable the performance of a turbocharger to be matched exactly to different engine ratings, a number of nozzle guide vane rings with differing nozzle area is supplied.

The turbocharger can be used in conjunction with the Rotol pressure-ratio sensor and exhaust by-pass valve, which make it possible to maintain the best conditions of boost over the entire range of engine speeds. The pressure-ratio sensor is fitted between the air intake to the compressor housing and the pressure air intake to the engine induction manifold; it incorporates a diaphragm that operates an adjacent valve which allows oil pressure to operate the exhaust by-pass valve. The exhaust by-pass valve is fitted between the exhaust manifold on the engine and the exhaust gas inlet on the turbocharger and allows a proportion of the engine exhaust gases to by-pass the turbine wheel, which occurs when the optimum ratio of air at atmospheric pressure to air entering the engine induction manifold is exceeded.

TOOLMAKERS' CERTIFICATE

Revised Conditions of Award

REVISED conditions of award of the G.T.M.A. Certificate of Craftsmanship which may be applied for in respect of gauge and tool making, instrument manufacture, special-purpose machines and tooling, press tool, die, and mould making, and so on, have been announced by the Gauge and Tool Makers' Association. Applications for the certificate will be considered from young men who (a) have served a bona-fide indentured apprenticeship in precision engineering with special reference to gauge and tool making and precision equipment allied thereto; and (b) have also passed the final examination of the City and Guilds of London Institute course in machine shop engineering or have obtained the ordinary national certificate in production engineering or in mechanical engineering endorsed in workshop technology.

Association Membership Not Essential

Applicants need not necessarily be employed with firms that are members of the association nor have served their apprenticeships with a member company; but applications for the certificate are not normally entertained if submitted more than two years after date of completion of apprenticeship. Copies of the application form can be obtained from the offices of the Gauge and Tool Makers' Association, Standbrook House, 2-5 Old Bond Street, London, W.1.

NEW MOULDING MATERIAL

Bakelite Polyester Glass Dough

JUST published by Bakelite, Limited, is Advance Information Sheet A4 which gives full details of DX 18927, a new fast-curing glass fibre-filled polyester dough moulding material. The new material combines high mechanical strength and excellent electrical properties with good water resistance, track resistance and dimensional stability. Although not quite as strong mechanically as more conventional alkyd or phenolic glass fibre-reinforced moulding materials, DX 18927 mouldings are cheaper to produce and the material is in many ways easier to handle and mould since it is soft and can be readily formed by hand without preheating.

The free flow and rapid cure of the new polyester dough enable components of relatively complicated design to be produced. Thick sections can be moulded by normal compression methods without the breathing, chilling or long cures which are often necessary with other glass-filled materials if blistering is to be prevented. DX 18927 is recommended for applications where high mechanical strength is required and especially where the inherent properties of alkyd moulding material would be an advantage. Such applications include contactor bases, fuse boxes, terminal boxes, switchgear components, barrier strips and insulators of every description. Other applications, where mechanical strength is the main requirement include battery trays, tool handles, cases and bobbins.

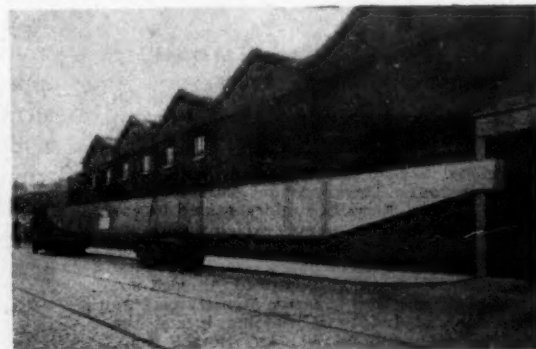


However tricky your load, B.R.S. can handle it

Circumstances may be against you. But British Road Services are on your side — always. A telephone call to your local B.R.S. depot quickly brings you a helping hand from a nationwide organisation with a willing and experienced staff and a vast fleet of vehicles of all kinds, regularly maintained, and ready to tackle any job, at any time. Modern methods and equipment ensure careful attention to every load, and the B.R.S. teleprinter network provides the means for rapid transmission of your special instructions.

B.R.S. will go to great lengths to solve your transport problems.

A girder for the U.K. Atomic Energy Authority, Caithness — weight 16 tons, length 125 feet, on a B.R.S. vehicle and special bogie — just another of the many and varied services British Road Services render to Trade and Industry.



If you find transport something of a problem...

Ring  **British Road Services**

— the best link between dispatch and delivery

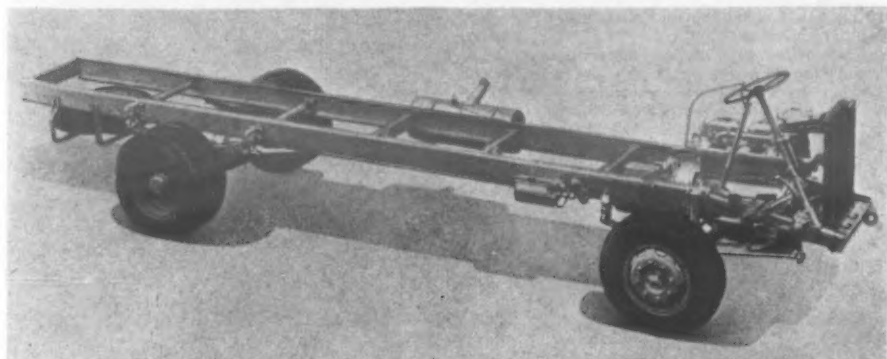
NEW ALBIONS FOR BULK LOADS

Versions of Victor Passenger Chassis

TO meet a demand from home and overseas operators for a chassis to carry light and bulky loads in a pantech-nicon-type body, Albion Motors, Limited, has introduced two new vertical-engined chassis based on the new Albion Victor passenger models. Designated VT19N and VT19N(HD), both chassis have a wheelbase of 15 ft. 6 in. (4.72 metres) and a space behind the driver's cab capable of accommodating a body with an internal length of 21 ft. 6 in. (6.55 metres). Model VT19N is designed for a gross vehicle weight of 165 cwt. (8,382 kg.), is mounted on 8.25-20 12-ply single tyres on the front and 8.25-20 10-ply twin

a heavy-duty five speed constant-mesh box. To improve fuel economy or to obtain a higher road speed, a helical-toothed overdrive sixth speed with a ratio of 0.76 to 1 can be built in the rear of the box. The new Albion spiral bevel rear axle with epicyclic hub-reduction gears, standard on a number of other Albion vehicles, is fitted.

Road springing on the new Victors calls for mention since both front and rear springs are no less than 54 in. long. They are of the normal semi-elliptic type and are designed to provide the most comfortable riding possible under all conditions of road surfaces and loading. Supplementary control of



Chassis of the new Albion VT19N version of the Victor passenger model for bulk loads

tyres on the rear axle. It has a dry chassis weight of 5½ cwt. (2,781 kg.).

Overdrive Available

Designed to operate at a heavier gross vehicle weight of 204 cwt. (10,364 kg.), the VT19N(HD) model is equipped with a larger frame section, has a dry weight of 56½ cwt. (2,883 kg.), and is mounted on 8.25-20 14-ply single tyres at the front and 8.25-20 12-ply twin tyres at the rear. The new Victor pantech-nicon chassis are powered by the latest version of the 5.5-litre Albion four-cylinder diesel engine which for this purpose develops 90 b.h.p. at 2,200 r.p.m. and has a maximum torque of 252 lb./ft. (34.84 kg.m.) at 1,250 r.p.m.

As on the new Victor passenger models, the new VT19s have a single dryplate clutch hydraulically operated by a long-stroke slave cylinder with automatic adjustment for wear. The clutch has a 13-in. (33-cm.) diameter and a frictional area of 163 sq. in. (1,052 sq. cm.) They also have the same gearbox—

the front suspension on bump and rebound is made by hydraulic telescopic shock absorbers. Other features of the new Victor pantech-nicon chassis include hydraulically operated brakes with hydro-vac vacuum-servo assistance having a total braking area of 494 sq. in. (3,187 sq. cm.), and a 288-watt dynamo with 24-volt lighting and starting equipment. Offered as an optional fitment, the driver's cab is a pressed-steel modern style cab with easy access and good all-round visibility through a glazing area of 2,924 sq. in. (18,929 sq. cm.).

Rocol, Limited, has introduced a new product, anti-scuffing spray, in an aerosol pack as a handy and efficient method of applying molybdenum disulphide lubricant films to metal and plastic surfaces. The spray contains a basis of molybdenum disulphide of particle size best for surface treatments, bonding resin to effect retention of a film and a propellant.



The slat conveyor for inwards traffic at the new Eastern Region goods shed at Lincoln; part of the old and new rolling-stock exhibition (referred to editorially in our January 24 issue) is seen on the left



British Waterways reinforced plastics 270 cu. ft. container being loaded at Knostrop depot, near Leeds, on international service to Gothenburg. Transfer to the shipping services takes place at Hull or Goole, both of which are linked with a large number of ports in North-Western Europe. This new venture was referred to in our December 20, 1958, issue

349 COACHES FOR SOUTH AFRICA



One of the new suburban train 1st class motor-coaches for the Reef System now in service on South African Railways.

Designed and supplied by

METROPOLITAN-CAMMELL CARRIAGE & WAGON CO. LTD.

who, as main contractors, are supplying 70 motor-coaches and 123 trailers, whilst 35 motor-coaches and 121 trailers are being supplied by The Birmingham Railway Carriage & Wagon Co. Ltd. The main electrical items were provided by Metropolitan-Vickers Electrical Co. Ltd

These Coaches are

fitted with

WESTINGHOUSE

**ELECTRO-VACUUM
BRAKE EQUIPMENT**

with air controls for the auxiliaries

Made in England by—

Westinghouse Brake and Signal Co. Ltd., 82 York Way, Kings Cross, London, N.1

India—Saxby & Farmer (India) Private Ltd., Calcutta
Australia—Westinghouse Brake (Australia) Pty. Ltd., Concord West, N.S.W.
South Africa—Westinghouse Brake & Signal Co. S.A. (Pty.) Ltd., Johannesburg
Agents:—Bellamy & Lambie, Johannesburg

80 YEARS EXPERIENCE IN DESIGN AND MANUFACTURE OF RAILWAY BRAKES

PICKFORDS HEAVY HAULAGE SERVICE

Abnormal Loads • Lifting

MOBILE CRANES FOR HIRE • Branches in all large towns

If you require

• BUFFERS

Obtain your requirements from reliable makers—

**TURTON
PLATTS & CO., LTD.**

MEADOW HALL RD., SHEFFIELD

London Office 14-15, BUSH LANE HOUSE, CANNON STREET, EC4

QUALITY
TELLS

Railway Breakdown Practices

(Continued from page 5)



The Tangye Hydralite jack

M.F.D., and similar apparatus, is of most advantage on railways using high-pressure air-brake systems, such as the Westinghouse or Knorr, where a comparatively simple and light air-hydraulic pump can be used. In Britain, and other countries where the vacuum brake is standard, it is necessary

including those in Britain, Belgium, Denmark, France, Japan and the Netherlands, use steel ropes working with a form of pulley or pulley block anchored to the track. Certain railways, amongst them the Swedish, Swiss, South African, New Zealand, and some of those in Australia, do not appear to use hauling gear to any appreciable extent. On the Canadian National Railways hauling is done by the crane auxiliary hoist at the jib head.

Lightweight Cutting Equipment

Another essential at the scene of serious accidents is cutting equipment. The use of oxy-acetylene gear is virtually universal. The British Railways use mostly the standard equipment of the British Oxygen Company (B.O.C.), and this is also in use in South Africa. In Britain, breakdown trains normally carry one bottle of acetylene and two of oxygen, and the apparatus will cut steel up to 12 in. thick and cast iron up to 3 in. thick. The standard size apparatus used in most countries is heavy to carry about, but in France, Sweden, Germany, Switzerland and Canada lightweight cutting gear is used. Thus the Continental 'disaster outfit' used by the Swiss Federal Railways has a total weight of only 53 lb.

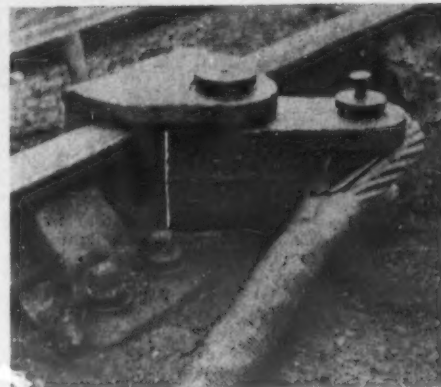
As has already been stated, cranes still remain the most effective method of dealing with serious accidents. It is impracticable in an article of this

hoist of 250 tons can be raised with a boom radius of 17½ ft., whilst at a boom radius of 25 ft., 135 tons can be lifted and at 38 ft., 55 tons. With the auxiliary hoist 60 tons can be raised at 25-ft. radius and 45 tons at 48-ft. radius. Cranes at present used by British Railways are normally of from 35- to 50-ton capacity, but with the increasing use of diesel locomotives, cranes up to 75-ton capacity are likely to be introduced soon.

European Crane Practice

In Continental Europe, the French National Railways uses Cockerill cranes of 130 and 85 tons (metric) capacity, whilst the largest breakdown crane used by the German Federal Railway is of 90-ton capacity. Elsewhere, crane capacity does not usually exceed 80 to 70 tons. Mention ought perhaps to be made of the modern 50-ton crane built by Cowans Sheldon for the Swedish State Railways. This was fitted throughout with roller-bearing axle-boxes and hinged outriggers.

Certain railways, in particular those in the British sphere of interest such as those in India and Australia, have found it desirable, in order to comply with axleload restriction whilst in transit, to incorporate relieving bogies, weight being transferred from the crane proper to these bogies. The Cockerill cranes of the French National Railways use a unique system for this purpose whereby swing outriggers, in addition to their principal function of

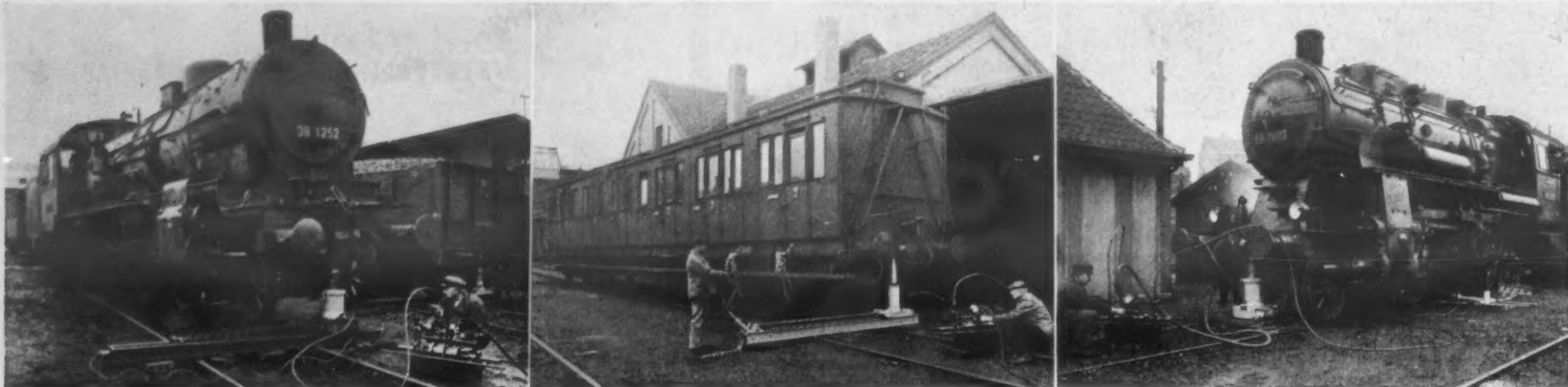


Kelbus rail anchor in use

ence of both, prefer the hinged type, claiming that it is easier to pack. Railways using the sliding type do so as they fear that obstruction may prevent the hinged type being taken to its right-angle position.

Steam Cranes Preferred

In general, most railways still prefer steam-powered cranes which are said to be cheaper in first cost, more reliable, easier to maintain, less noisy and smoother to operate than diesels. Raising of steam does not normally present any difficulty as this can be undertaken on the way to the accident.



The MFD system by Maschinenfabrik Deutschland in service: re-railing a locomotive with re-railing bridge, roller carriage and low type hydraulic lifting jack; re-railing a coach; and, right, dealing with a locomotive with roller carriage and jack—the 10-ton horizontal jack is seen by the leading coupled wheel. The apparatus for obtaining hydraulic pressure from the airbrake air supply is also seen

to have a separate diesel engine to drive the hydraulic pump; the unit in use by British Railways for this purpose is mounted on a four-wheel truck and weighs approximately half a ton. Handling is difficult and operation may even be impossible in some circumstances.

Successful results in re-railing are frequently obtained by the hauling of derailed vehicles over ramps or timber packing. A number of railways,

nature to attempt to compare in detail the various types of breakdown cranes used by railways throughout the world. The largest breakdown cranes built are those in use in the United States, where wrecking cranes of 250 short tons capacity are almost standard equipment for the important railways. These cranes are mounted on two six-wheeled bogies and operated either by steam or twin diesel units. The maximum lift on the main

stabilising the crane while working, also transfer the weight to relieving bogies when in train.

The design of outriggers is of particular importance. Opinion is divided between the sliding type as used in Britain, Canada, India, Italy and Switzerland, and the hinged or swing type as used in South Africa, Belgium, France, Norway, Sweden and New Zealand. Railways, in these last-mentioned countries and in Denmark, which has experi-

it being the usual practice to employ some type of boiler-heating device when the cranes are standing idle. There is, however, a growing trend towards the use of diesel cranes owing to their quicker starting ability and their lower dependence on water supplies. Such cranes are in use in Denmark, Japan, the Netherlands, Switzerland and on some American railways.

(To be continued)

They're mushrooming everywhere!

... in the forecourts of important commercial, industrial and public buildings ... promenades, petrol stations and public gardens ... in schools and in shopping centres ... railway and omnibus stations.

In 'CRYSTEAL' Vitreous Enamel rustproof finish. Made in two sizes: 30 in. and 36 in. dia. Spigot cap, with 3 pole-grip screws, is provided for 3 in. dia. pole.

WHEREVER EFFICIENT, WIDE SPREAD AND WELL-DIFFUSED LIGHT IS NEEDED OUT OF DOORS the call is for

BENZAMIN
MUSHROOM FITTINGS

Send for this fully illustrated leaflet

THE BENJAMIN ELECTRIC LIMITED • TOTTENHAM • LONDON N17 • Phone: TOTtenham 5252 (5 lines) • Grams: Benjalect Southtot London

BIRMINGHAM: 5 Corporation St., Birmingham 2. Tel: Midland 5197 • LEEDS: 49 Basinghall St., Leeds 1. Tel: Leeds 25579 • BRISTOL: Royal London Buildings, Baldwin St., Bristol. Tel: Bristol 28406

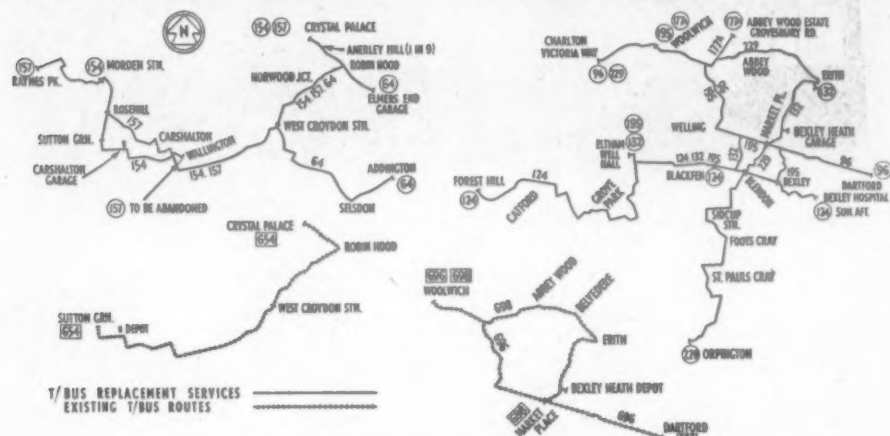
LONDON TROLLEYBUSES

Replacement Preparations

INTEGRATION WITH BUS ROUTES

ON March 4, as already announced, a start will be made with a 13-stage programme in which all London trolleybuses, with the exception of a group in the south-west, will be replaced by diesel buses. The programme will take approximately three years to carry out and will cost £10,500,000. The trolleybuses to be replaced have an average age of 20 years.

Transport garages to handle buses on the run in. The islands are supplied with the standard London Transport self-regulating fuelling hoses and points for dispensing lubrication oil and radiator water. The lubricating oil is drawn from a 500-gal. tank. Vacuum cleaning hoses are provided for use while a bus is being refuelled, the original plant used for trolleybuses having been adapted. An Essex bus



Bus and trolleybus routes in stage 1 of the London Transport replacement scheme, showing integration with existing bus services

Stage 1 of the conversion involves three routes in the Woolwich, Charlton, Bexleyheath, Dartford, Crystal Palace, Croydon and Sutton areas—routes 696, 698 and 654. Considerable integration with existing services will be effected. Advantage has been taken of the greater flexibility afforded by diesel buses to replan certain routes, with the result that eight route extensions and new through facilities, impracticable with trolleybus operation, are to be introduced. New links will be provided between residential areas, factory estates and shopping centres, in the first case with RT-type buses rendered surplus by recent service cuts in

washing machine has been installed and a roof washer will follow. One of two boiler rooms has been taken out of use and the other has been enlarged to accommodate three modern oil-fired boilers with photo-electric control. Fume exhaust pipes are being installed adjacent to the pits.

Operation

Bexleyheath depot provides 65 trolleybuses for scheduled service daily. All on Leyland chassis, they comprise two of Class B2, which were originally of short type but were rebuilt to full



Sodium lighting in Bexleyheath trolleybus depot; offices and stores are now on the perimeter

the Central Area. The routes were detailed in our January 24 issue; we now give diagrams.

The copper-cadmium overhead wiring and roadside standards on the trolleybus routes will be removed as opportunity permits unless the standards are required by local authorities in the areas concerned. Any fittings needed as spares for other trolleybus routes will be retained and the remaining equipment will be offered for sale. The overhead track mileage on route 696 is 17.8 miles and that on route 698 is 16.7 miles. One stretch of road at the Woolwich end is common to both routes so that the total route mileage affected is 15.45. The track mileage on route 654 is 19.8; but of this 0.8 miles will be retained in West Croydon for use by

length after being damaged during the war, 49 of Class D2 and 17 of Class H1. The B2 and D2 classes of trolleybus were introduced in 1935 and 1936 respectively, and the H1 class in 1938. Bexleyheath depot was built by the London Passenger Transport Board and opened on November 10, 1935, when Route 698 began. It was the only completely new L.P.T.B. trolleybus depot. Route 696 began on November 24, 1935; Nos. 696 and 698 have always been detached from the rest of the system.

At Carshalton depot standard fuelling islands are being provided, together with vacuum cleaning equipment and an Essex washing machine. The former gantries used for hand cleaning are being



A Leyland B1 trolleybus climbing the 1 in 9 of Anerley Hill on a demonstration before the opening of service in 1936; a test of the run-back brake after deliberate dewirement; right, the coasting brake in action to prevent a downhill runaway

route 630. The total route mileage involved is 25. At Bexleyheath nearly 170 drivers and maintenance staff are taking special conversion courses to enable them to drive or maintain their new vehicles, and more than 80 men at Carshalton are taking similar courses.

Depot Conversion

The Bexleyheath and Carshalton trolleybus depots are now being converted, without interruption of services, for use by diesel buses. Work began last March and is being conducted with some regard for economy. Where possible existing equipment is being adapted; washing machines in some cases are being transferred from garages which had more than one machine but where a single machine is now sufficient. At Bexleyheath, three 5,000-gal. above-ground bus fuel tanks have been installed in the open at the rear of the garage. These feed new fuelling islands of the type in use at most London

removed. The coke-burning boiler installation has been replaced by a modern self-regulating oil-fired bank of three boilers. Two 5,000-gal. tanks for bus fuel have been erected at one side of the forecourt, and a 2,500-gal. oil tank has been installed to supply the oil-fired boilers. There is also a new 500-gal. tank for lubricating oil.

Part of the monorail hoist equipment is being removed, but the part over the maintenance pits is being retained for future use. Pits not required are being filled in. An electric traverser and turntable, with a pit extending the whole width of the depot, will be removed and the pit filled in. From Carshalton depot 26 trolleybuses, 60-seaters of Class B1, among the oldest in the fleet, are provided for scheduled service on 654, which began from Sutton to West Croydon on December 8, 1935, and was extended to Crystal Palace on February 9, 1936, nearly 23 years ago. A breakdown lorry also is stationed at Carshalton.

BARIMAR 48-Hour EXPRESS SERVICE -

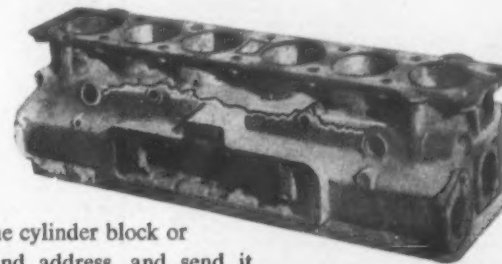
YOU CAN CONTACT THIS SERVICE AT ANY TIME



ALL BRANCHES OPERATE IT!

HOPELESS? Never, in the hands and care of Barimar experts. Every sharp drop in temperature means burst water-jackets—frost-fractures to cylinder blocks and cylinder heads. True, but Barimar is always ready with its 48-hour day and night service to repair the damage promptly and inexpensively. Barimar returns to the customer a perfect repair—dependable, strong, and covered by the famous Barimar Money-back Guarantee! Never decide that frost-fractured cylinders are "hopeless"—there is no such word for Barimar.

SCRAP? out of the question—the answer is BARIMAR SCIENTIFIC WELDING



Remove all fittings, tag the cylinder block or head with your name and address, and send it CARRIAGE PAID to the nearest Barimar address. Barimar will put it right before you can say "JACK FROST"

BARIMAR LTD.

Barimar House, 22-24, Peterborough Road, FULHAM, LONDON, S.W.6.

Telephones: RENown 2147-2148. (Night) 2148. Telegrams: "Bariquamar, Walsgreen, London"

BARIMAR BRANCH ADDRESSES: BIRMINGHAM, 12: 116-117, Charles Henry St. Tel. Midland 2696
MANCHESTER, 13: 67, Brunswick St., Ardwick. Tel. Ardwick 2738
NEWCASTLE UPON TYNE, 1: 64-66, The Close. Tel. 21035
GLASGOW, C.2: 134, West George Lane. Tel. Central 4709

BARIMAR—The World's Scientific Welding Engineers

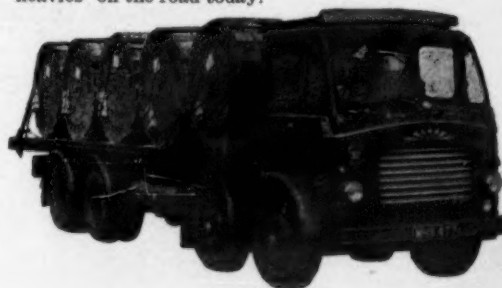
If our early 8 wheelers do this...

Carrying a 16 ton payload at 11.5 m.p.g., an Albion 1951 8-wheeler recently completed 345,000 miles with original engine, crankshaft bearings, diff, big end bearings, axle shafts and C.A.V. pump... and the operator describes its performance as "still absolutely magnificent". That's how Albion built them eight years ago. Today they are even better. Their new 24 ton g.v.w. CALEDONIAN has a payload of 16 tons or, fitted with tank body, a capacity of 4000 gallons. Features include twin rear axle drive, braking on all axles, remarkably easy control, rocking beam suspension, Leyland 9.8 litre engine and an all-metal forward control cab styled for extra comfort. And its price compares favourably with any other 8-wheeler. We don't know what the CALEDONIAN can't do. But we do know that it can and will prove to be the biggest profit maker among 'heavies' on the road today.

"345,000 miles and the performance is still absolutely magnificent"

S. L. DAVIS, HAULAGE CONTRACTOR, CINDERFORD, GLOS.

WHAT CAN'T THE NEW CALEDONIAN DO?



Sales Division: HANOVER HOUSE, HANOVER SQUARE, LONDON, W.1. Tel: MAYfair 8851



SILVER ROADWAYS LTD.

Reliable Trunk Services to all Parts

BRISTOL 8 The Grove, Bristol 1 BRISTOL 25216	CARDIFF 10 Dumfries Place CARDIFF 21631	GLASGOW 12 Dixon Street, C.2 CITY 2341
BIRMINGHAM 323 High St., West Bromwich, Staffs. WEST BROMWICH 2601	SWANSEA Exchange Buildings SWANSEA 241711D	LIVERPOOL 11 Old Hall Street, Liverpool, 3 CENTRAL 6386
LLANELLY Morris Works, Llanelly LLANELLY 4302	TAVISTOCK Harford Bridge TAVISTOCK 2374	NOTTINGHAM Pavilion Building, Pavilion Road West Bridgford NOTTINGHAM 63461
LONDON 22-24 Bernersway Wall West, S.E.16 BERNERSWAY 4533		

for the **TRANSPORT**
of all
BULK LIQUIDSHarts Lane, North Street, Barking
Tel.: RIFFLEWAY 0966 (4 Lines)**OFFICIAL NOTICES****CITY OF BELFAST**
TRANSPORT DEPARTMENT
CLAIMS OFFICER

APPLICATIONS are invited for the above post. Duties shall include the investigation of and reporting on all claims against the department for loss, damage to property, personal injury, etc. Applicants should preferably have experience of sharing agreements between Insurance Companies on claims. Associateship of the Chartered Insurance Institute would be an advantage.

Salary scale: £685—£920 per annum. Commencing salary according to qualifications and experience.

Superannuation contributions of approximately 6 per cent of remuneration will be payable. Reciprocal pension arrangements exist between the Corporation and certain Public Authorities.

Canvassing will disqualify. Application forms, etc., obtainable from the General Manager, Transport Department, Utility Street, Belfast. Completed forms must reach the undersigned by Tuesday, February 17, 1959.

JOHN DUNLOP,

Town Clerk.

City Hall,
P.O. Box 234,
Belfast.**RURAL DISTRICT COUNCIL OF DARTFORD**
APPOINTMENT OF TRANSPORT AND
PUBLIC CLEANSING OFFICER

APPLICATIONS are invited for the post of Transport and Public Cleansing Officer. Salary Grade APTIII plus £30 per annum London weighting

(£755 to £875 per annum). Commencing salary according to qualifications and experience. Preference will be given to Candidates who are Corporate Members of the Institute of Transport or who hold the Testamur of the Institute of Public Cleansing. A car will be provided for use on official duties. Housing needs will be considered. Form of application which may be obtained from the Engineer and Surveyor at the address below should be returned to him on or before February 9.

J. H. MILBURN,
Clerk to the Council.White Oak,
Swanley, Kent.**CLASSIFIED ADVERTISEMENT**

RATES.—The minimum charge for classified advertisements is 7s. for 14 words or less, and 6d. for each additional word. The name and address of the advertiser is charged at the same rate. If a box number is used 2s. extra is charged to cover our name and address and postage. If set in paragraph form each paragraph is estimated separately. Official Notices and semi-display in the classified columns are charged at the rate of 40s. per single column inch.

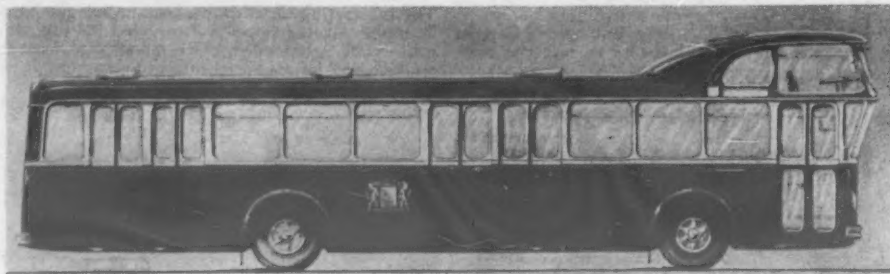
SITUATION VACANT

ELECTRICAL ENGINEERS required to assist with the preparation of estimates, plans, circuit diagrams and specifications for railway signalling schemes. Interesting work, offering excellent prospects to energetic persons with initiative. Applicants should hold Engineering Degree, Higher National Certificate in Electrical Engineering or equivalent and preferably should have completed National Service. Knowledge of railway working an advantage but not essential. Five-day week with contributory pension scheme and canteen facilities. Apply in writing, giving full details of age, general education, technical qualifications and experience to: Signals Division, Westinghouse Brake and Signal Company, Limited, 82 York Way, King's Cross, London, N.1.

DRIVER ALOFT**In New Swiss Bus**

WHAT promises to be one of the most interesting vehicles at the next Geneva Motor Show (March 12-22) is now nearing completion at the Zürich bodybuilding works of Gebrüder Tüschler. The design has been produced in an attempt

passengers to the rear of the driver (whilst the bus is travelling) so as to ensure vision to the nearside of the road. The arrangement may be contrasted with the Gelabert coach in Barcelona (MODERN TRANSPORT, October 19, 1957) where the driver is in a

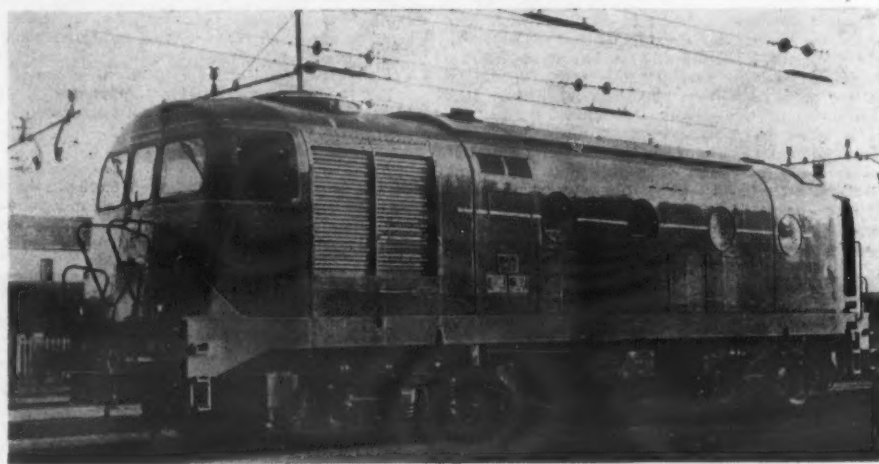


Patent design by Gebrüder Tüschler for a Zürich City service bus to take 120 passengers with an overall length of 36 ft. by mounting the driver in a front-end roof dome

to increase the carrying capacity of underfloor-engined city service buses by making the space which is usually occupied by the driving compartment available for additional seats and standee room. In the new F.B.W.-engined vehicle the driving seat has been put in a forward 'bubble' raised above the roof line and reached by means of a three-rung ladder from inside the bus. This elevated driving position promotes exceptionally good visibility to the front and sides of the vehicle, and does away with the need to keep standing

on the racing car stance in an elevated roof section stretching to the rear of the coach.

The novel vehicle, intended for service with Zürich City Transport, will have a crush-load capacity of 120 passengers but is, in fact, 4 ft. shorter than the 40-ft. buses at present operated on some routes. Wheelbase of the prototype is 18 ft. 4 in. and the front overhang is 7 ft. 1 in. The rear (loading) platform enclosed by two power-operated double folding doors is carried on the exceptionally large chassis overhang of 11 ft. 3 in.



One of two 1,320-h.p. Breda diesel-electric locomotives for the Italian State Railways with Paxman 12-cylinder Vee-type power unit built under licence. A further 15 have now been ordered

Firestone

'SUPER TRANSPORT'

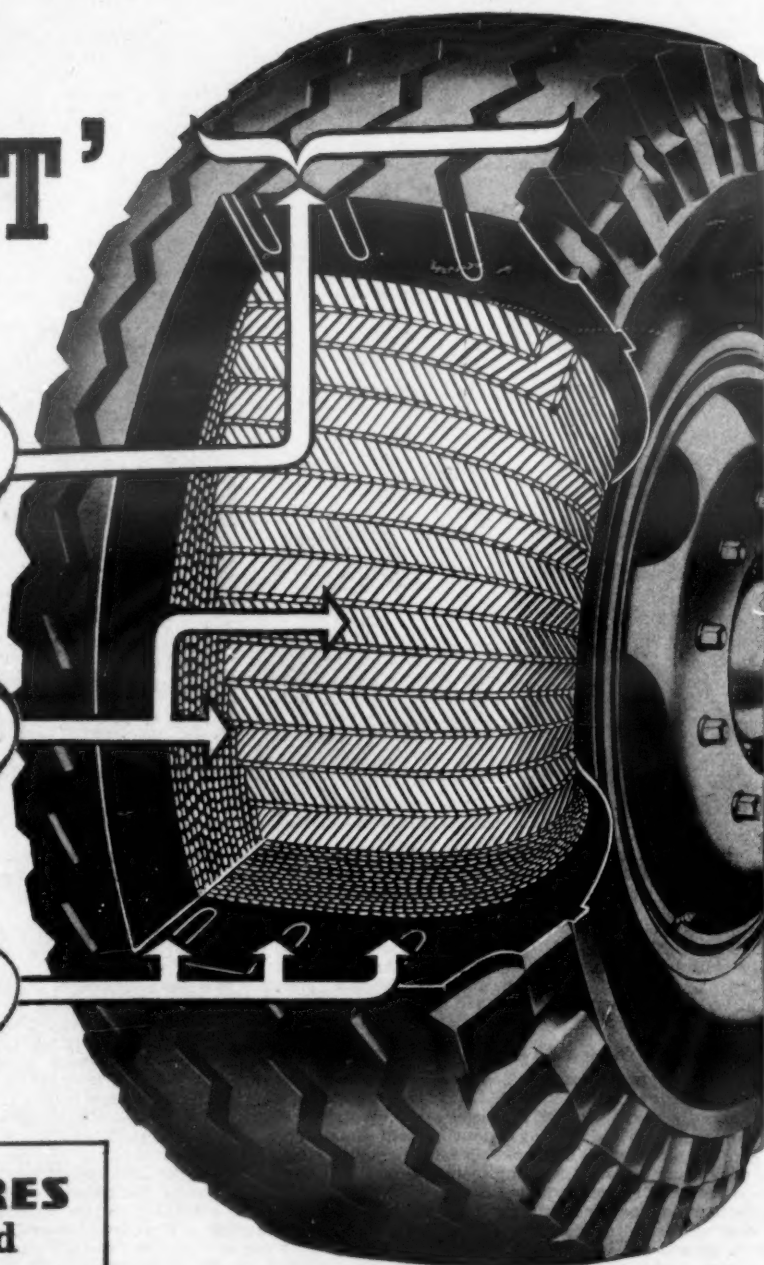
A
premium
tyre
for lower
running
costs



Wider, Flatter Tread
More Road Contact, Greater Stability
Less Wear

Safer, Stronger Body ...
Safety-Tensioned Gum-Dipped
Cord Body Prevents Growth, Tread
Cracking, Ply Separation

Deeper non-skid pattern
and a greater volume of tread rubber
—for higher mileage

**Experience Counts—**

44 Factories throughout the world.
Firestone total sales exceed £1,000,000 per day.



Firestone TYRES
—consistently good

SOCIAL AND PERSONAL

U.S. Air Award to British Executive

It is announced that Sir George Edwards, managing director of Vickers-Armstrongs (Aircraft) Limited, has been elected an honorary fellow of the Institute of The Aeronautical Sciences of the U.S.A. This is the highest honour which the Institute can award, and is given only to two people each year, one of whom must be resident in the U.S.A. and the other abroad. The American recipient for 1959 is Mr. Charles S. Draper, head of the department of aeronautics and astronautics at the Massachusetts Institute of Technology. The awards were made in New York on Tuesday this week.

Mr. R. A. Riddles, deputy chairman, Stothert and Pitt, Limited, and a former member of the Railway Executive, has been appointed chairman of the company. He succeeds Sir Llewellyn Soulsby, chairman since 1946, who has resigned to devote more time to his other interests. Sir Llewellyn Soulsby will continue as a director. Mr. T. W. Y. Alderton has been appointed a director.

Mr. Gordon L. Nicholson, M.I.Mech.E., M.Inst.T., M.Loco.E., who has been designated divisional traffic manager, Glasgow and South West division, Scottish Region, B.R., left Ryde School in 1931 to become a pupil in the Eastleigh works of the Southern Railway.



Mr. G. L. Nicholson

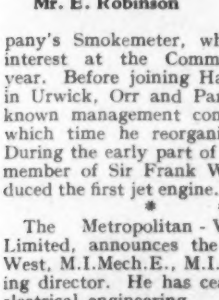
After training, he served as locomotive foreman from 1936 successively at Dorchester, Yeovil, Norwood and New Cross Gate. In 1943 he became assistant for the Isle of Wight, a combined traffic and technical post. He was transferred to Waterloo in 1946 as outdoor assistant to the superintendent of operation, and returned to the motive power department in 1947 as assistant to the motive power superintendent. He was appointed district motive power superintendent, Stewarts Lane, in 1950, and went to Scotland in 1955 as assistant to the general manager (modernisation). Mr. Nicholson attended a course at the Administrative Staff College, Henley-on-Thames, during 1952, and in 1956 was the B.T.C. nominee to H.R.H. the Duke of Edinburgh's Commonwealth Conference held at Oxford that year on the human problems of industrial communities. He was commissioned in the Army Emergency Reserve in 1950, and commanded 157 Loco. Running Squadron, R.E., from 1951 to 1954.

The Earl of Inchcape, a director of the British India Steam Navigation Co., Limited, has been appointed a deputy chairman of the company.

Mr. M. F. R. Potter has been appointed buying manager in charge of the supply organisation which is responsible for the purchasing for Pirelli, Limited, as well as on behalf of the International and Italian groups of Pirelli, Limited.

Dr. F. E. Jones, M.B.E., B.Sc., Ph.D., M.I.E.E., A.F.R.Ae.S., a director of Mullard, Limited, has accepted an invitation to become a member of the B.T.C. research advisory council. The council, which comprises a number of eminent scientists outside the transport industry, advises the Commission on the application of science and research to its problems. Current subjects include the 25-kV a.c. electrification system for British Railways, the riding qualities of railway rolling stock, and the siting problems of ports and waterways.

Mr. E. Robinson, A.C.G.I., B.Sc., A.F.R.Ae.S., A.M.I.Mech.E., has been appointed managing director of Leslie Hartridge, Limited, and Mr. Leslie Hartridge, who founded the company and has been managing director for more than 30 years, is to become chairman. In future he will be giving overall guidance to the company but will be also concerned with maintaining and extending overseas markets and he expects to do a lot of travelling. Mr. Robinson joined the company three years ago as deputy managing director and has played a major part in the development and launching of the company's Smokometer, which aroused considerable interest at the Commercial Motor Show last year. Before joining Hartridge he was a partner in Urwick, Orr and Partners, Limited, the well-known management consultant company, during which time he reorganised some 14 companies. During the early part of the 1939-45 war he was a member of Sir Frank Whittle's team which produced the first jet engine.



Mr. E. Robinson

The Metropolitan-Vickers Electrical Co., Limited, announces the appointment of Mr. H. West, M.I.Mech.E., M.I.E.E., as assistant managing director. He has ceased to act as director of electrical engineering.

Sir Ralf Emerson, C.I.E., O.B.E., M.Inst.T., chairman of the Nigerian Railway Corporation, is to be the speaker at the informal luncheon of the Institute of Transport arranged for February 3 at the Connaught Rooms.

An exhibition, "Town Roads for Today—and Tomorrow," opened in London on Wednesday this week by Mr. Harold Watkinson, the Minister of Transport, refutes the common fear of spoiled architecture, etc., associated with new road construction in built-up areas. As previously indicated, it is organised by the British Road Federation, and includes photographs, plans and models of urban road schemes all over the world. It proves that valuable though these are, projects far more ambitious than the Hyde Park Corner underpass and the Hammersmith flyover can be blended into a city's general pattern without destroying its character. The exhibition, open until February 7, is at the Institution of Civil Engineers in Westminster.

Mr. V. P. Skone-Rees has been appointed consumer trade manager at head office for the Power Petroleum Co., Limited, from March 1.

Mr. Brian Gray is to act for Mr. T. P. Stafford, divisional traffic manager for the East Midlands, London Midland Region. The arrangement is entirely temporary and due to the illness of Mr. Stafford.

Mr. A. E. Searle has been elected chairman of the Transport Manager's Club (London area) Mr. Searle is the manager of the transport and depot stocks department of C. C. Wakefield and Co., Limited. He succeeds Mr. Duncan Cameron, manager, Hayes and Slough branch, B.R.S.

The annual general meeting of the National Road Passenger Transport Ambulance Association, of which Mr. J. B. Burrell, operating manager, Central buses, London Transport Executive, is president, was held in London on January 21. Mr. H. D. Lewis, 68 Flora Street, Cathays, Cardiff, is hon. secretary of the association.

Mr. J. M. Fleming, B.A., M.Inst.T., who has been appointed divisional traffic manager designate, East Coast division, Scottish Region, B.R., was educated at Christ's Hospital, Horsham, and Clare College, Cambridge, and entered L.N.E.R. service in the Scottish Area in 1928 as a traffic apprentice. He went to the goods manager's office, Glasgow, in 1932, and from 1933 to 1938 served, in the chief general manager's office, Kings Cross. Mr. Fleming was assistant to locomotive running superintendent, York, from 1938 to 1941. He then became acting assistant district superintendent, Hull, and in 1942 was appointed head of works section, chief general manager's office. He was made acting district goods and passenger manager, Peterborough, in 1943 (confirmed in 1945). In 1946 he was appointed district goods and passenger manager, Edinburgh, and in 1947, assistant goods manager, Scottish Area. In 1949 he took up the appointment of district commercial superintendent (goods), Glasgow (later redesignated district goods manager, Glasgow). Mr. Fleming is vice-chairman of the Scottish section of the Institute of Transport.



Mr. J. M. Fleming

Mr. L. Waller, who is to succeed Mr. F. A. Dickinson as traffic manager of Ribble Motor Services, Limited, following the latter's retirement at the end of March, has been liaison officer attached to the general manager's office at Preston.

The paper at the Scottish Road Passenger Transport Association conference, to be held at Turnberry from April 14 to 17, will be read by Mr. John Cooper, M.Inst.T., general manager, Leicester City Transport, who will discuss the subject, "Management Accountability in Road Passenger Transport" at the meeting on April 15.

Mr. D. G. Haigh, M.I.E.E., has been appointed export manager of Chloride Batteries, Limited. He is now responsible for ensuring co-ordination of export marketing, within the existing framework of the product selling organisation, for the control of overseas representatives and the overall administration of overseas agencies.

Mr. H. E. Hard, secretary and comptroller of the International Harvester Company of Great Britain, Limited, 1955, has returned to the U.S.A. to take up new and important duties with the motor truck division of the parent company. The position of comptroller will be taken by Mr. G. F. P. Bradbrooke and that of secretary by Mr. A. J. E. Cushion.

The Omnibus Society is to repeat the successful tour of transport undertakings held in 1958; this year it will be jointly run with the Southdown Enthusiasts Club and the Bristol Interest Circle from June 20 to June 28. A more leisurely tour will be arranged from London to Bristol, Barnstaple, Plymouth, Exeter, Bournemouth and Southampton to London—some 750 miles.

Mr. P. G. Byrne has been appointed to the newly created position of commercial manager, Coras Iompair Eireann. Mr. D. Delaney, assistant commercial superintendent, will succeed Mr. J. J. O'Dwyer, commercial superintendent, retiring today (January 31). Mr. B. d'A. Patterson becomes general services officer. He will be responsible for good appearance of stations and vehicles.

Sir Anthony Elkins, deputy chairman of the British Match Corporation, has been appointed chairman of the Aircraft Company and Jicwood, Limited. He succeeds Mr. Eoin C. Mekie, who has retired as chairman following the acquisition of the whole of the share capital of Aircraft Company and Jicwood by British Match. He will remain on the board of Aircraft by special request of British Match.

We regret to record the death of Mr. Sean O hUadhaigh, aged 72. A solicitor, he was the first chairman of Aer Lingus Teoranta when it was formed in 1936, and from 1937 to 1944 he was also a director of Aer Rianta. He was reappointed in 1946 and continued in office until his death. He was among the pioneers of civil aviation in Ireland and was also closely connected with professional bodies—he was a former president of the Incorporated Law Society—and those aiming at fostering the Irish language.

We record with regret the death, a week before his 65th birthday, of Mr. Frank Norton Hillier, M.C., who was secretary-general of the Air League of the British Empire from 1950 until the end of 1957 when ill-health brought about his retirement. Educated at Dulwich College, he served with distinction in the 1914-18 war and thereafter had wide experience in journalism. In 1941 he joined the British Overseas Airways Corporation as publicity controller, having for the previous three years been press and publicity officer of the Ministry of Home Security. In 1948 he moved to a similar post with British South American Airways, but that organisation was absorbed in B.O.A.C. in 1949.

For low cost deliveries — choose the

KARRIER 'BANTAM'

Petrol or Diesel

2-3 TONNER



Example of the petrol-engined 'Bantam' 2-3 tonner with special van bodywork.

Easy to handle, and with a high degree of comfort, this quality-built truck, available with alternative wheelbases, will give thousands of miles of trouble-free running. Furthermore, Rootes Specialised Service facilities are available throughout the country whenever needed.

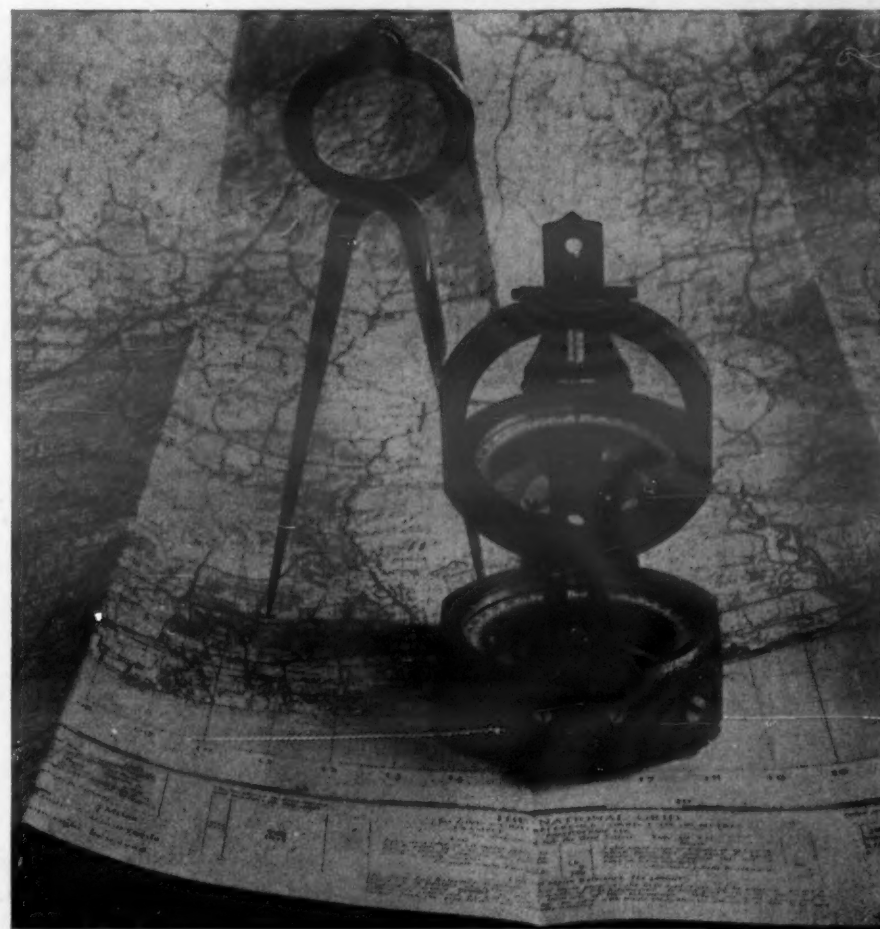
SALIENT FEATURES

- ★ Light diesel engine developing 54 b.h.p. or 4 cyl. o.h.v. petrol engine developing 53.5 b.h.p., with long life chrome bores.
- ★ Full forward control with over 11' body-space on 8' 2" w.b. chassis; over 14' on 10' 2" w.b. chassis.
- ★ Gross vehicle weight 99 cwt.
- ★ Exceptional manoeuvrability.
- ★ Low platform easier and quicker to load.
- ★ Powerful hydraulic brakes.
- ★ Comfortable all-steel cab of imposing appearance.

A ROOTES PRODUCT—BUILT STRONGER TO LAST LONGER!

KARRIER MOTORS LTD. LUTON

EXPORT DIVISION: ROOTES LTD. DEVONSHIRE HOUSE, PICCADILLY LONDON W1



Whatever route your drivers travel, they can refuel with Shell Derv at the nation-wide network of Shell Derv agencies. At these agencies your drivers can, by showing a Shell Authority Card, refuel on a pre-arranged credit system, or they can pay cash. Ask your local office of Shell-Mex and BP Ltd. for full details of this scheme.

**SHELL MEETS
THE DEMAND
FOR DERV ALL
OVER BRITAIN**



YOU CAN BE SURE OF SHELL

IMPORTANT CONTRACTS

Diesel Shunting Locomotives for B.R.

THE British Transport Commission has placed orders for 102 diesel shunting locomotives and 37 sets of power equipment (diesel engines, gearboxes, and ancillaries) for locomotives to be erected in railway workshops, as part of the programme for the replacement by diesel locomotives of all steam engines employed in shunting duties on British Railways. Orders for diesel shunting locomotives now total more than 1,700 and over 1,000 of them are already in service. All the 139 diesel shunting locomotives now ordered will be in the 200-225 h.p. range, 36 of them having hydraulic transmissions and the remainder mechanical transmissions, embodying a conventional gearbox. The Scottish Region is to have 56 of the locomotives, including those with hydraulic transmission, the North Eastern Region 58, the Southern Region 13, and the Western Region 12. Included in these allocations are the 37 shunting locomotives which are to be built in British Railways workshops, of which 25 will be erected at Doncaster for the North Eastern Region, and 12 at Swindon for the Western Region.

Details of the orders are as follows:

Drewry Car Co., Limited, City Wall House, 129-139 Finsbury Pavement, London, E.C.2, 13 204-h.p. 0-4-0 diesel-mechanical shunting locomotives, and 37 sets of power-equipment for 200-h.p. 0-4-0 diesel shunting locomotives to be built in B.R. works.

North British Locomotive Co., Limited, Flemington Street, Springburn, Glasgow, N.1, 36 225-h.p. 0-4-0 diesel-hydraulic shunting locomotives.

Andrew Barclay, Sons and Co., Limited, Caledonia Works, Kilmarnock, 20 204-h.p. 0-4-0 diesel-mechanical shunting locomotives.

Hunslet Engine Co., Limited, Hunslet Engine Works, 125 Jack Lane, Leeds, 10, 33 204-h.p. 0-4-0 diesel-mechanical shunting locomotives.

The 66 locomotives to be built by Andrew Barclay, Drewry Car and Hunslet and the 37 sets of equipment to be supplied by Drewry will all incorporate the Gardner eight-cylinder type 8L3 diesel engine developing 204 b.h.p. at 1,200 r.p.m.

Contracts for South Wales Docks

Contracts recently placed by the British Transport Commission (South Wales Docks) include:

Cowans, Sheldon and Co., Limited, for supply and erection of electrically operated traverser for No. 14 Coal Hoist Berth, King's Dock, Swansea.

Scottish Cables, Limited, for supply of cable for new crane facilities, North Dock, W. port.

New Oil Terminal at Poole

The Mobil Oil Co., Limited, has announced that work has started at Poole on the construction by Wilson Lovatt and Sons, Limited, of a new sea fed bulk terminal. The new installation is situated alongside New Quay, Hamworthy. The terminal will have storage capacity for over 500,000 gallons. It will be fed from New Quay, Hamworthy, where tankers bringing product from Coryton Refinery will berth.

Ground Units for Comet 4

Substantial contracts for ground power units for starting and servicing the new de Havilland Comet 4 air liners have been received by Auto Diesels, Limited, of Uxbridge, from a number of airlines including a £72,000 order from Aerolineas Argentinas. The units on order have dual voltage and have been developed to meet the high electrical

needs of the modern jet airliner which, in the case of the Comet, requires 800 amps, at 112 volts for starting purposes alone. They incorporate Crompton Parkinson equipment and the Leyland 0.680 diesel engine.

Chassisless Buses for Jamaica

Jamaica Omnibus Services, Limited, which, since taking over bus operation in Jamaica some six years ago has placed orders for 180 Leyland single-deck buses, has ordered a further 15 underfloor-engined chassisless buses produced by Metropolitan-Cammell-Weymann, Limited, and Leyland Motors, Limited. The new Olympic buses that have been ordered are 35 ft. long with two-entrance bodies seating 44 passengers. Instead of the standard 150-h.p. Leyland 0680 diesel engines, 125-h.p. O600 engines will be fitted together with semi-automatic Pneumo-Cyclic gearboxes.

TENDERS INVITED

THE following items are extracted from the Board of Trade Special Register Service of Information. Inquiries should be addressed, quoting reference number where given, to the Export Services Branch, Board of Trade, Lacon House, Theobalds Road, London, W.C.1.

February 4—Union of South Africa.—Cape Provincial Administration, Divisional Council of Matatiele, for one light motor van of not less than 1,000-lb. payload capacity and one 12-14 ton self-propelled roller. Tenders to be submitted to the office of the Divisional Council, Matatiele, (ESB/2033/58.)

February 5—Portuguese East Africa.—Ports, Railways and Transport Department for 350 automatic coupling knuckles Alliance No. 2, 150 automatic coupling knuckles Atlas No. 1, and 1,194 smoke tubes for locomotives /60. Tenders to Ports, Railways and Transport Department, Lourenco Marques. (ESB/1309 and 1310/59.)

February 6—Union of South Africa.—South African Railways for 392 train lighting battery chargers. The equipment is to be suitably rated for continuous operation at altitudes up to 6,000 ft. and at ambient temperatures of 45 deg. C. Tenders to Chairman of the Tender Board, P.O. Box 7784, Johannesburg. (ESB/2131/59.)

February 13—Ethiopia.—Imperial Highway Authority for 10 traction-driven pull-type road sweepers. Tenders to Imperial Highway Authority, P.O. Box 1770, Addis Ababa. (ESB/1938/59.)

February 16—France.—Supreme Headquarters Allied Powers Europe for 150 tyres 750x14—4 ply, 75 tyres 640x15—4 ply, 50 tubes 750x14, and 25 tubes 640x15. Tenders to Headquarters Command, Purchasing and Contracting Office, Supreme Headquarters Allied Powers Europe, Paris. (ESB/2111/59.)

March 2—Australia.—South Australian Railways for the supply and delivery at its Laington Workshops of 10 general-purpose diesel-electric locomotives (900-1,000 h.p. available for traction) in complete working order, also spare parts and equipment. Tenders to the office of the Railways Commissioner, North Terrace, Adelaide, South Australia. (ESB/1359/59.)

Export Opportunity—Finland.—Korpivaara Oy, Mannerheimintie 5, Helsinki, is interested in obtaining agencies on behalf of United Kingdom firms for lorries and bus chassis. (ESB/1032/59.)

Export Opportunity—France.—Automobiles Berliet, Route d'Heyrieux, Venissieux, Lyon, manufacturer of heavy lorries and buses, is examining the possibilities of obtaining vehicle accessories and raw materials (particularly steel) and factory machinery from sources outside France, including the United Kingdom. (ESB/1847/59.)

Export Opportunity—Iran.—Mr. John R. King, Technical Services Branch, National Iranian Oil Company, Tehran, is concerned with the erection of a covered storage area in the city of Rey, a few miles south of Tehran, and would like catalogues illustrating United Kingdom-manufactured racks, bins, pallets, steel-framed buildings and goods-handling equipment, including fork-lift trucks. He would appreciate also an indication of the items in the catalogues which United Kingdom firms consider most suitable for use on the project. (ESB/30221/59.)

SHIPPING AND SHIPBUILDING

Closure of Small Cardiff Docks

TRADERS at Cardiff Docks have learned of a British Transport Commission proposal, not yet made public, to close the smaller East and West Docks in the port system there. West Dock has seen very little traffic in recent years, but East Dock is still used in the regular coasting trade. Both, however, are considered uneconomic by the B.T.C. The question of the improvement and expansion of trade at Cardiff Docks has recently been considered by the Cardiff City Council and the Chamber of Commerce and a request has been made to the Minister of Transport, the President of the Board of Trade and the chairman of the British Transport Commission to receive a joint deputation to discuss the port's future.

Orders Not Coming In

DURING 1958 West Germany led Britain in terms of new tonnage launched and the Shipbuilding Conference reports that the total of orders booked by British yards in 1958 was the lowest since 1948—144 ships of 497,000 tons gross. This was nearly equalled by the cancellations—37 ships of 454,000 tons gross. As a result the total order book fell by nearly one and a half million tons, to 5,430,000. The conference lists only firm cancellations of firm orders; further cancellations doubtless have been, and will be, made beyond their totals. On the other hand there are berth reservations not listed in the conference's orders. Some of the smaller yards are considered now to be feeling the pinch.

Roll-on-Roll-off as Defence Feature

NOT fewer than 20 of the new cargo ships to be built in the United States must be equipped with one deck suitable for roll-on roll-off operations, the American Defence Department has told the shipping industry. This plan represents a compromise from an original Defence Department call for five complete roll-on roll-off vessels. In addition to the 20 ships the department would like to see similar facilities incorporated in as many more ships as possible. The new vessels would be fitted with a special deck below the weather deck with a 14-ft. ceiling capable of handling loaded trailers or other military vehicles. The Defence Department has turned down a compromise solution, lift-on lift-off, and it also insists that semi-trailer wheels should not have to be removed, i.e., to secure more compact storage.

Keel Laying for C.P. Liner

THE keel of the new passenger liner for Canadian Pacific Steamship, Limited, was laid by Vickers-Armstrongs (Shipbuilders), Limited, at the Naval Yard, Walker-on-Tyne, on Tuesday this week on the berth on which the *Empress of England* was built for the same company two years ago. The order is worth some \$23 million. The new vessel will be larger than her predecessor, the principal dimensions being: Length, 650 ft., breadth, 86 ft. 6 in., depth, 48 ft. and gross tonnage (approximately), 27,500 tons. Her service speed will be 21 knots and the liner will have

accommodation for 200 passengers first class and 860 (approximately) in the tourist class. She will be the largest passenger ship built on the Tyne for over 50 years and the largest in the Canadian Pacific fleet. The design will take into consideration service on the Canadian run during the St. Lawrence season and cruising in the winter.

Every effort to produce a steady ship under all conditions is being made by the inclusion of the latest improvements in stabiliser equipment and by a modified underwater form which embodies a bulbous bow and was only arrived at after a prolonged series of experiments with wave-making effects which were made by Vickers-Armstrongs (Shipbuilders), Limited, in its ship model experimental tank at St. Albans. The builders anticipate that the vessel will be ready for launching early next year and the maiden voyage is scheduled for spring 1961. The name of the new ship has not yet been chosen. The machinery is being constructed by Vickers-Armstrongs (Engineers), Limited, at Barrow-in-Furness.

FINANCIAL RESULTS

NOTES on the trading results, dividends and financial provisions of companies associated with the transport industry are contained in this feature, together with details of share issues, acquisitions and company formations or reorganisations.

W. G. Bagnall

W. H. Dorman and Co., Limited, Stafford, has completed negotiations for the acquisition of the whole of the share capital and undertaking of W. G. Bagnall, Limited, also of Stafford, from the Heenan Group, Limited. W. H. Dorman was founded in 1870, W. G. Bagnall in 1875.

S. Smith and Sons (England)

A co-ordinating board has been appointed to direct and co-ordinate S. Smith and Sons (England), Limited, and its subsidiary companies, which will be collectively known as Smiths aviation and marine divisions. The units concerned are Smiths Aircraft Instruments, Smith Industrial Instruments, Waymouth Gauges and Instruments, David Harcourt, Kelvin and Hughes and subsidiary companies, and that part of the business of S. Smith and Sons (England) devoted to the manufacture or sale of aviation and allied products. The composition of the co-ordinating board is as follows: chairman, Mr. Ralph Gordon-Smith (chairman and managing director of S. Smith and Sons (England)); managing director, Mr. G. H. G. Potter (managing director of Kelvin and Hughes); directors, Mr. L. A. Morgan (director and general manager of Smiths Aircraft Instruments); Wing Commander H. M. Samuelson (technical sales director of Smiths Aircraft Instruments); Mr. G. S. Sturrock (commercial director of Kelvin and Hughes).

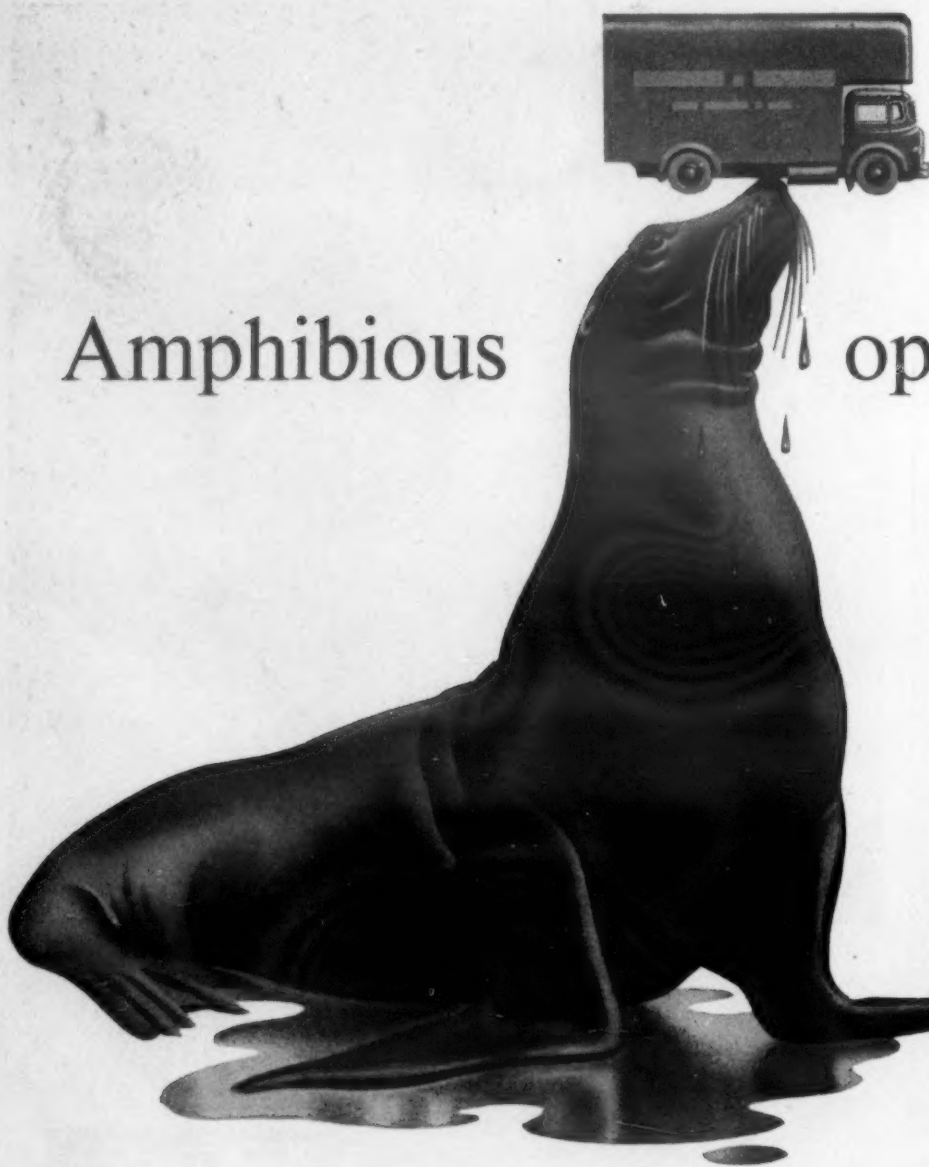
F. Perkins

A formal offer on behalf of Massey-Ferguson Holdings, for the ordinary 10s. shares of F. Perkins, Limited, has now been made. Acceptance is unanimously recommended by the Perkins board. In a circular letter to holders, Mr. F. A. Perkins, chairman, states that it is anticipated that the profit for 1958, before tax, will be in the neighbourhood of £450,000. Mr. Perkins would receive £30,000 compensation for loss of office under the terms of the take-over bid by Massey-Ferguson. Two other directors would receive £4,375 and £2,500. He says it is impossible to foresee, at the present time, sufficient demand to keep the plant fully employed on the manufacture of diesel engines. Moreover, it appears unlikely that any substantial contribution to net earnings can be expected in the next few years from activities outside the company's traditional field.

In Montreal, Mr. A. Thornbrough, president of Massey-Ferguson, said the Perkins offer was independent of the negotiations with the Standard Motor Co., Limited. After the take-over, Perkins would continue to supply existing customers. These included Ford, Dexta Tractor, Cockshutt Farm Equipment, Allis Chalmers and International Harvester.

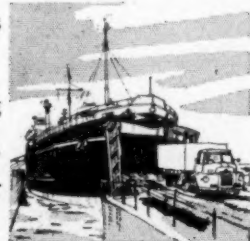
Amphibious

operation



The simplest, most direct route for all exported goods to the Continent. Your own lorries, or those of your haulage contractor, drive on to the Ferry at Tilbury and off again at Antwerp. Packaging, breakage, pilferage and handling delays are reduced to a minimum. The Transport Ferry Service also runs daily between Preston and N. Ireland. Drivers—and, if required, salesmen and technical representatives—travel with the vehicles from door to door. It is as easy now to deliver goods abroad as at home.

The Transport Ferry Service is a time and money-saving reality—the best way to the Continent and Northern Ireland. Ask your Transport Manager, usual haulage contractor or shipping agent about it, or write to:



THE TRANSPORT FERRY SERVICE

(ATLANTIC STEAM NAVIGATION CO. LTD.)
25 Whitehall, London, S.W.1. Telephone: Whitehall 2401/6 or 5564/6

LONDON (TILBURY) TO ANTWERP • PRESTON TO NORTHERN IRELAND